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CHRONICLE OF THE WORLD HEALTH ORGANIZATION

SEVENTH WORLD HEALTH ASSEMBLY
TECHNICAL DISCUSSIONS
AWARD OF LÉON BERNARD FOUNDATION PRIZE
AWARD OF DARLING FOUNDATION PRIZE
MASS BCG VACCINATION CAMPAIGNS

REVIEW OF WHO PUBLICATIONS
NOTES AND NEWS
VIEWS ON WHO

WORLD HEALTH ORGANIZATION
PALAIS DES NATIONS
GENEVA

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The World Health Organization (WHO) is a specialized agency of the United Nations and represents the culmination of efforts to establish a single intergovernmental health agency. As such, it inherits the functions of antecedent organizations such as the Office International d'Hygiène Publique, the Health Organization of the League of Nations, and the Health Division of UNRRA.

WHO had its origin in the proposal made at the United Nations Conference held in San Francisco n 1945 that a specialized agency be created to deal with all matters relating to health. In 1946, representatives of 61 governments met at the International Health Conference, New York, drafted and signed the WHO Constitution, and established an Interim Commission to serve until the Constitution could be ratified by 26 Member States of the United Nations. The Constitution came into force on 7 April 1948, the First World Health Assembly met in Geneva in June 1948, and on 1 September 1948 the permanent Organization was established.

The work of the Organization is carried out by three organs : the World Health Assembly, the supreme authority, to which all Member States send delegates ; the Executive Board, the executive organ of the Health Assembly, consisting of 18 persons designated by as many Member States ; and a Secretariat under the Director-General.

The scope of WHO's interests and activities exceeds that of any previous international health organization and includes, in addition to major projects relating to malaria, tuberculosis, venereal diseases and treponematoses, maternal and child health, nutrition, and environmental sanitation, special programmes on public-health administration, epidemic diseases, mental health, professional and technical training, and other public-health subjects. It is also continuing work begun by earlier organizations on biological standardization, unification of pharmacopoeias, addiction-producing drugs, health statistics, international sanitary regulations, and the collection and dissemination of technical information, including epidemiological statistics.

* * *

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SCHEDULE OF MEETINGS

2-7 August	**Expert Committee on Midwifery Training, first session, The Hague**
23-28 August	**Conference of a Consultant Group on Prosthetics, Copenhagen**
2-11 September	**Study Conference on Children in Hospitals, Stockholm**
6-13 September	**Regional Committee for Western Pacific, fifth session, Manila**
13-16 September	**Regional Committee for Europe, fourth session, Opatija**
13-18 September	**Expert Committee on Health Statistics, fourth session, Geneva**
20-25 September	**Regional Committee for Africa, fourth session, Léopoldville**
21-25 September	**Regional Committee for South-East Asia, seventh session, New Delhi**
27-30 September	**Expert Committee on the International Pharmacopoeia, Subcommittee on Non-Proprietary Names, sixth session, Geneva**
27 September-2 October	**Joint Meeting of the Expert Committees on Mental Health and on Alcohol, Geneva**

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SEVENTH WORLD HEALTH ASSEMBLY

The Seventh World Health Assembly, which met in Geneva from 4 to 21 May 1954, was attended by representatives of 67 Member States[1] and 4 Associate Members.[2]

Dr. Joseph N. Togba, Director-General of the National Health Service, Liberia, was unanimously elected President of the Assembly. Dr. Togba pointed out in his presidential address that to the best of his knowledge " this is the first world-wide organization which has a true African as its President ", and interpreted the gesture of the Assembly in electing him to its highest office as evidence that in WHO " the concept of democracy is being translated into action without regard to size or development of country, to race, to colour, or to creed ".

At the time of the Seventh World Health Assembly's meeting in Geneva, the Palais des Nations also saw the opening of the important political conference called to discuss a peace settlement in Korea and Indo-China. " There is a deep symbolic significance ", Dr. Togba said in his presidential address, " in the fact that this session of our Assembly coincides with the holding of the Asian Conference in this same Palais des Nations. I am sure that this remarkable coincidence will heighten in all of us our sense of responsibility by further underlining the role our Organization can and must play in the creation of a secure world ... A really sincere rapprochement between the now divided parts of the world should undoubtedly bring our Organization closer to the goal of universal membership, which is an indispensable condition for the success of our long-range programme. Furthermore, it can reasonably be expected that a substantial relief in international tension would also alleviate the tremendous economic burdens all nations now carry as a result of ever-increasing armaments.

" Each country would then at last be able to devote a greater proportion of its national revenue to constructive purposes, and the improvement of health can surely be considered as a fundamental factor in the raising of the general welfare of the people.

" It is precisely this close relationship between health and prosperity which defines the role an organization like WHO must play and the responsibilities it must assume in the cause of peace. If, indeed, it is true that any success met in this renewed attempt to bridge the political gap separating West and East will directly benefit the work of WHO, it is equally true that each step we take together towards the betterment of world health is also part of our search for world peace. Indeed, recent history has shown us that on the national as well as the international level any advance made in the political field is nullified unless accompanied by similar advances in the social and economic fields...

" Thus the task which lies before this Assembly is far greater—and of far greater import—than just to make another move against any particular disease or even a group of diseases. Within our own particular sphere of action, we have to restore the confidence of the growing number of

[1] Afghanistan, Argentina, Australia, Austria, Belgium, Brazil, Burma, Cambodia, Canada, Ceylon, Chile, China, Costa Rica, Cuba, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Germany, Guatemala, Haiti, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Korea, Laos, Lebanon, Liberia, Libya, Luxembourg, Mexico, Monaco, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, Syria, Thailand, Turkey, Union of South Africa, Uruguay, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela, Viet Nam, Yemen, Yugoslavia.

[2] The Federation of Rhodesia and Nyasaland, Morocco (French Zone), Spanish Protectorate Zone in Morocco, Tunisia.

people who despair of man's ability to take his destiny in his own hands, and to use the marvellous gifts of his brain for his good instead of his destruction. We have to prove to the people of the world that whatever geographical, political, religious, social, or economic group they belong to, they can solve their problems *not* in terms of what they believe is best for their individual countries, but only of what will benefit the world as a whole..."

The Assembly elected the following three Vice-Presidents : Dr. Y. Bauji (Lebanon), Sir Claude Corea (Ceylon), and Dr. F. Hurtado (Cuba). Dr. E. J. Aujaleu (France) was elected Chairman of the Committee on Programme and Budget, and Dr. M. Jafar (Pakistan), Chairman of the Committee on Administration, Finance, and Legal Matters.

As every year, before discussing the new programme and budget and various other technical, legal, and administrative questions, a general discussion was held on the Director-General's report on the activities of the Organization during the preceding year.[3] In presenting his Annual Report to the Assembly, the Director-General opened the discussion by stating :

" In the first place, I wish to give you my views on the idea of regionalization itself. This was talked about, in fact talked about a great deal, some years ago. There were those who thought that a young organization like ours could not afford such a luxury. Others did not wholly subscribe to the principle itself; they feared that, in the long run, regionalization might destroy the world character of the Organization, that is to say, the very spirit which had led to its creation. I do not hesitate to assert today that the experience of these past five years has fully justified the views of those who favoured the most extensive decentralization. Having worked as long at headquarters as in one of our regions, I for my part am firmly convinced that most of the results we have obtained we owe to decentralization...

" This is obviously not the place to describe in full detail all that we accomplished in 1953 or propose to carry out in the coming year. However, generally speaking, I have every hope that, thanks to the means at the disposal of headquarters and of the regional offices, the various countries can count on WHO to an increasing extent to improve their epidemiological services, without which they would be unable to protect their people against the outbreak of epidemics; to develop their vital-statistical services, which enable them to estimate the extent of the problems they have to face; to inform them of the progress being made every day in medical science; and finally to help them to benefit from improvements in technique.

" In the coming years, we shall continue to create and develop rural health services in collaboration with the governments. We shall arrange conferences, seminars or other meetings which cannot fail to prove valuable. This will be done not only on the national level, but also regionally, so as to ensure the co-operation of all countries whose problems are closely related. We shall also make it our duty to help as far as possible in improving environmental sanitation. In this aspect of sanitation, to which we are constantly devoting more attention, the fundamental problem is, as you are aware, the training of qualified staff. We also hope to foster, in close collaboration with governments, the operation of vast campaigns against endemic diseases. We know these diseases like old enemies; we know what should be done to combat them effectively. Let us mobilize all possible resources for this purpose... "

During the general discussion which followed the introductory remarks of the

[3] *Chron. Wld Hlth Org.*, 1954, **8**, 155

Director-General, delegates from many countries expressed general satisfaction with the work of the Organization, and offered suggestions for possible new developments and criticism on certain programmes being carried out by WHO. A complete account of these discussions will be found in No. 55 of the *Official Records of the World Health Organization*, which is expected to become available in October of this year.

PROGRAMME AND BUDGET

The unforeseen and severe cuts in the funds available for activities carried out under the technical assistance programme confronted the Seventh World Health Assembly with financial problems of a greater magnitude than perhaps any other preceding Assembly. The basic question before the delegates was whether to increase the budget of the Organization to enable it to fulfil all its commitments, and thus live up to the expectations of each Member government, or to reduce certain activities, valuable as they might be, in order not to increase the burden of the financial contribution of all Member States.

" . . . We have reached a real turning-point in the history of WHO ", the Director-General warned the Assembly in plenary session. " Through the force of circumstances we first passed through a stage of emergency measures, and then through that of improvising short-term programmes. We have now arrived at the period when WHO is fully equal to the task for which it was actually created. I mean by that that the moment has finally come where we can only regard our action in the form of long-term programmes, thoroughly and accurately prepared. This implies continuity in the programmes, and thus security as regards funds. And that brings me to the most important problem we have to face : the problem of the budget. You are aware of the prolonged and extremely serious financial difficulties which we had to surmount recently. The crisis occurred because we were suddenly deprived of the indispensable means of financing a programme that was continually expanding. We counted on receiving certain funds and we were disappointed. At the same time we came within an ace of losing our most precious possession : the confidence of governments in the Organization's ability to fulfil its engagements. This situation, Mr. President and delegates, must not occur again. I told you a few moments ago that we have long since passed the stage of improvisation, of hasty and limited measures, to enter into a period of action carefully and deliberately thought out. We should now be able to dispose of the means to carry out the policy we have chosen. WHO cannot place its work on a solid and durable foundation if a part of its world-wide programme has to depend on resources which may or may not be forthcoming.

" A heavy task has been entrusted to this Organization, one requiring a long time for its accomplishment. What do the past few years signify in comparison with what lies before us ? Very little indeed. We must think in terms of WHO's future. WHO should be able to contemplate with confidence the magnitude of the task it has to accomplish. What WHO needs is, in short, the means to achieve full development. That is why, while the bitterness caused by our very recent difficulties is still fresh in our minds and while we are conscious of the danger that we may again have to say ' no ' or ' wait ' to urgent appeals, I ask that our budget for 1955 be increased. WHO, I repeat, cannot be left dependent on uncertain resources. . . .

" The basic issue ", concluded the Director-General in presenting his budget to one of

the main committees of the Assembly, " is simply whether, at this crucial moment of WHO's development, the Organization will be given the financial resources it must have if it is to discharge adequately the responsibilities the people of the world, through their governments, have assigned to it. . . . I consider the programme of work for 1955. . . realistic . . . from all points of view. . . This is so because we have undoubtedly overcome the three main obstacles which, during its formative years, made it difficult for WHO to give full scope to its activities.

" Today you have an organization with a sound structure, both at headquarters and in the regions. Today your organization can command the services of people who are not only highly qualified in the various branches of public health, but who also have a clear understanding of the problems of international life. Today, too, we have at our disposal, as a result of six years' experience, a set of techniques and methods incorporated in WHO which can be used for the betterment of world health in the most effective and most economical way . . .

" During the years 1953 and 1954, we had to postpone a total number of one hundred and seventy-six projects requested by governments, involving a total expenditure of three million, three hundred thousand dollars. The value of the services lost to our Member States can be judged by the fact that, of these one hundred and seventy-six projects, eighteen related to maternal and child health, thirteen to tuberculosis, twelve to endemo-epidemic diseases, forty to public health administration, etc. . . This drastic curtailment of our programme . . . was due to the considerable decrease in the amount of cash expected to be available under the Expanded Programme of Technical Assistance as compared with the amounts WHO had at its disposal from this source in the preceding two financial periods. . . "

The Programme

The need to reduce expenditure gave delegates an opportunity to distinguish between what they considered the indispensable activities of WHO and those which could be classified as secondary.

Most delegates agreed that one of the most valuable activities was the training of medical and paramedical personnel. In this connexion, the United States delegation observed that there was a tendency to give more and more specialized training to public-health personnel; the delegation inferred that there was as serious a shortage of men of broad background and capabilities as of specialists. Persons of really wide training could define the problems existing in a given zone before projects for that zone were organized. The delegate of Venezuela also thought it preferable to train a large number of administrators capable of seeing problems as a whole, rather than specialists.

A number of delegates felt that the award of fellowships was one of the most practical ways of providing for the training of personnel. The delegates of India, Thailand, and Yugoslavia pointed out, however, that fellowships would be still more valuable if they made it possible for candidates to be trained in their own countries rather than abroad. A number of other suggestions were made in connexion with the training of personnel : experts on missions should take advantage of their stay in a locality to train others in their speciality; health demonstration areas should be used for the instruction of personnel from other areas with similar health problems; medical missions should be more frequently organized, should be of at least six months' duration, and should provide training in a number of places.

The representatives of the underdeveloped countries and the directors of certain regional

offices considered that the most important task was the control of communicable diseases, together with improvement in environmental sanitation—which forms the basis of any such control—and the health education of the people, without which no environmental sanitation programme, however good, could succeed. In their opinion, WHO should concentrate its efforts on these activities instead of dispersing them over a number of secondary activities. No one, of course, underrated the difficulties involved. In India, for example, where a vast environmental sanitation programme was about to be started with the assistance of the United States Foreign Operations Administration (USFOA), there was a shortage, not of personnel, but of equipment; large capital sums were needed which the international organizations could not provide. Another difficulty was that the primary importance of sanitation was not always understood, and in some of the requests for assistance addressed to WHO it was sometimes forgotten that sanitation was the first step in the control of communicable disease. At the end of the discussion on this subject, the Assembly decided to request the Executive Board and the Director-General to seek the best means of drawing the attention of Member States to the role of environmental sanitation and to the assistance which WHO could give them in this field.

Several delegates expressed the view that WHO should disseminate more information on medical and scientific problems, in particular the results of international seminars and other meetings of experts. It was also considered that more effort should be made to promote scientific research and even to participate in such work. The United States delegate cited two examples of fields in which research could be carried out which would be valuable from the point of view of world health. One was the preparation of compost, which would avoid the loss of indispensable nutritive elements in poorer countries; and the other the effect of sunlight on sewage, stimulating the formation of algae particularly rich in proteins and fats, which could serve as a food for fish and other animals on which man depended. WHO would generally, although not necessarily, confine itself to investigations into the practical application of laboratory discoveries. The Assembly invited the Member States which were in a position to carry out research to collaborate with WHO in research programmes of importance to international health; it also requested the Director-General to maintain close contact with other specialized agencies concerned with research work in the medical and sanitary fields.

Delegates requested that special measures be taken against certain diseases, particularly smallpox. There was some discussion on the desirability of extending compulsory vaccination. Delegates described the situation with regard to the prevalence and control of smallpox in their own countries. In general, it was agreed that there was a need for further research on this question. The Assembly requested the Director-General to continue to study the best means of controlling smallpox, especially in countries where the disease is endemic, to ask health administrators to organize smallpox campaigns wherever the need arose, and to give them every possible assistance in such activities.

Delegates of a number of European countries—Luxembourg, the Netherlands, Norway, and Sweden—considered that poliomyelitis should come high on the list of priorities; they felt that the method evolved by Professor Lassen in 1952 represented a real therapeutic advance and that it should be taught under the auspices of WHO before further devastating outbreaks occurred. The Swedish Government invited the Regional Office for Europe to study the possibility

of organizing teams which would give courses on the treatment of respiratory paralysis to physicians and nurses and would be at the disposal of the Regional Office for the rapid training of personnel in countries attacked by serious epidemics. In spite of insistence by several delegates on the necessity for immediate action, the decisions will have to be taken by the Regional Committee when it reviews its programme in September 1954. This meeting, in fact, coincides with that of the International Congress on Poliomyelitis in Rome. According to the Netherlands delegation, the Regional Committee should then at once begin organizing a course on the treatment of poliomyelitis, the practical work being entrusted to a team formed as suggested by the Swedish Government.

The question of cancer was raised by the French delegate, who felt that WHO should not confine its attention, as at present, to the notification of cases of cancer and their statistical presentation. Investigations should be undertaken into the real incidence of cancer in the various parts of the world, in particular on the causes of cancer in regions in which living conditions were very different from those in the more developed countries; to date, investigations had been concerned exclusively with the latter. Why, for example, was cancer of the liver so frequent in certain regions of Africa and Asia? The representative of the International Union against Cancer was also of the opinion that such surveys would provide extremely valuable etiological data; he felt that very few bodies were as well placed as WHO for carrying out this type of work.

During the debate on the budget, the Director-General had stated that the projects planned for 1955 had already been screened and that not one of them could be suppressed without serious consequences. The discussion on the programme seemed to show that after examination of WHO's present activities delegates also felt that none could be dispensed with. A very few projects were considered by certain delegates to be of secondary importance: the recruitment of a hospital architect and of a consultant on forensic medicine; the creation of a rehabilitation centre; and the holding of a mental health seminar. On the whole, although they were against any expenditure they considered excessive, the delegates were still inclined to suggest new subjects for projects, thus demonstrating their wish to see a continual widening of WHO's field of activity.

Decisions

The most important decisions taken by the Seventh World Health Assembly are the following:

— The Assembly fixed the WHO regular budget for 1955 at $9,500,000; this sum represents an increase of $1,000,000 over the 1954 budget but is $800,000 less than the amount proposed by the Director-General.

— The WHO programme remains generally the same,[4] but it is proposed that the Organization's activities be intensified in the fields of environmental sanitation and poliomyelitis, and that increased attention be given to the international co-ordination of research into health problems. WHO will also endeavour to improve smallpox control, particularly in countries where this disease is still endemic. The rules determining the choice of international non-proprietary names for drugs are to be re-examined; and the Eighth World Health Assembly will carry out a revision of those articles of the International Sanitary Regulations which refer to the delineation of yellow-fever endemic zones.

[4] A detailed description of the proposed programme for 1955 will be found in *Off. Rec. Wld Hlth Org.*, 50.

— The Assembly established a procedure which should enable the Regional Committee for the Eastern Mediterranean to meet this year. In spite of the division of the Regional Committee into two subcommittees, it was not possible to arrange any meeting last year. The Assembly decided that each Member State of the Region may sit in the subcommittee of its own choice; that although voting rights will be accorded in only one of the subcommittees, Member States may take part in the deliberations of both. The Assembly hopes that some Member States will join both subcommittees in order to strengthen the work of WHO. Each subcommittee will decide on its own rules of procedure, and each will appoint a person to meet with the Regional Director in order to harmonize the decisions of the subcommittees. Both subcommittees will have the same agenda, which may deal with matters affecting any part of the Region.

— The Federation of Rhodesia and Nyasaland was admitted as an Associate Member of WHO.

— The Assembly maintained the number of seats on the Executive Board at 18, rejecting a proposal that had been made to increase the number to 24 in view of the increase in the number of Member States—which is now 84—and in order to ensure wider geographical representation.

— Six Member States were elected by the Assembly to designate a person to serve on the Executive Board, replacing those whose mandate expires this year. The six States in question were : Burma, Chile, France, Japan, Saudi Arabia, and the Union of South Africa.

— The Assembly awarded the Léon Bernard Foundation Prize to Professor Jacques Parisot (France) (see p. 235) and the Darling Foundation Prize to Dr. G. Robert Coatney (USA) and Professor G. MacDonald (England) (see p. 239).

As a further step towards the adoption of Spanish as a working language, it was decided that the *Official Records* and reports of expert committees will be issued in Spanish as well as in English and French.

Finally, the Assembly decided that the Eighth World Health Assembly will be held in Mexico, accepting the invitation of the Mexican Government, which will bear all the extra costs of holding a session away from headquarters.

Serbo-Croat Edition of WHO Monograph

Bearing the title *Materinska briga za dijete i duševno zdravlje*, a Serbo-Croat translation of J. Bowlby's study *Maternal care and mental health* was published in 1953 in Zagreb, Yugoslavia, under official auspices, by " Zaštita Zdravlja ". This book was originally published in 1951 as No. 2 in the *World Health Organization : Monograph Series*. The translation is by Dr. Ante Pavković, and has a preface by Dr. Božidar Marković. In this preface, he says, " I hope that in this country as well this book will help to bring about a change both in theory and in methods of work. This, however, will not be easy, for nowhere is it more difficult to eradicate deeply-rooted prejudices than in the field of mental health."

TECHNICAL DISCUSSIONS

Public-Health Units in Rural Areas
Rural Sanitation
Zoonoses

" Public-Health Problems in Rural Areas " was selected as the subject for the Technical Discussions at the Seventh World Health Assembly. Interest in this topic dates back to the Health Organization of the League of Nations.

The Assembly designated Professor A. Stampar (Yugoslavia) as the General Chairman for the Technical Discussions, and Doctors E. de Paiva Ferreira Braga (Brazil), C. K. Lakshmanan (India), and J. Heng Liu (China), as the three Group Chairmen. " Public-Health Units in Rural Areas ", " Rural Sanitation ", and " Zoonoses " were the topics chosen for separate discussion. Three outstanding specialists—Professor F. Brockington of England, Professor M. Petrik of Yugoslavia, and Professor K. F. Meyer of the United States of America—were invited to present introductory statements and to assist the groups during the discussions.

Professor Stampar, in his introductory remarks, reminded the groups that the discussions were informal and that participants were there in their personal capacities and not as representatives of their respective countries. In his opinion, World Health Assemblies had been too much occupied in the past with administrative problems; assemblies of public-health administrators from all parts of the world were rare and provided valuable opportunities for technical discussions on subjects of world-wide interest and importance. Such technical conferences had been arranged since 1951. They facilitated a free interchange of views and discussion of experience gained in all parts of the world, provided important information, and gave a better insight into matters of a practical nature.

Professor Meyer then briefly introduced the subject of zoonoses. He emphasized the hazard constituted in the environment by animal diseases transmissible to man and stressed the importance, in the control of such diseases, of alert physicians, a central laboratory, a good reporting system, and co-operation between an educated public, the public-health veterinarian, and the local health department.

Professor Petrik emphasized the importance of rural environmental sanitation as part of a general public-health programme. He outlined the various phases of sanitation and stressed the need for suiting the programme to the needs of the community and the desirability of inducing self-aid through instruction and education.

Professor Brockington introduced the subject of public-health units in rural areas and reminded the participants that the world still " enjoys bad health when it could have good health ".

There follows a summary of the discussions held in the three study groups.

PUBLIC-HEALTH UNITS IN RURAL AREAS

The group agreed with the definition of a health unit adopted in the second report of the Expert Committee on Public Health Administration.[1] It was considered a purely

operational unit—representing the smallest unit of health service for rural areas—and would provide the basic health services, such as maternal and child health services, communicable-disease control, environmental sanitation, health education of the public, medical care, and maintenance of records for statistical purposes. Certain members of the group expressed the view that public-health nursing, being a technique to be utilized in all the six basic health services mentioned above, might not necessarily constitute a separate item of service.

Considerable discussion took place on the importance of the integration of curative and preventive services in the unit, particularly in the underdeveloped areas. The majority view was that the preventive and curative services should be integrated, with the caution that preventive work should not be swamped by medical care.

In areas of small, scattered villages, where transport was difficult, mobile health teams operating under the unit on a fixed schedule might be desirable.

In discussing the geographical area to be covered by a rural health unit, the group emphasized the great advantage in making the area correspond to that of a local political or administrative unit where other activities, such as education, agriculture, co-operatives, and handicrafts, were also being carried out, so that co-ordinated social and economic development at this level could be achieved. While it was recognized that it was not advisable to restrict the rural health unit's area in terms of population, it was, however, pointed out that the average population covered by successful existing rural health units ranged from 60,000 to 100,000.

The group devoted considerable time to discussing the importance and methods of encouraging community participation. There were many ways of doing this. The need for health education of the public was fully admitted by all the speakers. The group thought that one effective means of developing community participation would be through the organization of village health committees, representing local community leaders. Several countries had tried to educate villagers to serve on such committees and to carry out specific duties. In this connexion, the importance of co-operating with the educational activities in the community was further stressed. This aim could more easily be achieved if the unit was in close association with the local civil administration.

In areas where local initiative was lacking, it had been found necessary to have the national or provincial health authorities take the lead in establishing rural health units, with a view to assisting the local administrative bodies to develop a suitable local health administration under which the unit would operate. Considerable discussion took place on the possibilities of using the technique of administering the rural unit by an elected committee with financial responsibility. In the view of most speakers, the theoretical desirability of this step would need to give way before the practical impossibility of it in most, if not all, underdeveloped countries. The best to be hoped for, in India, for instance, was a Board of Health to advise. Nevertheless, the successful development of health units in rural areas would depend a great deal on the progress of such decentralization.

The group repeatedly stressed the need to study psychological and anthropological aspects. Their principles would often give the answer to local difficulties, and all work should be based upon them.

The staff of a rural health unit would depend on its size and scope of work. In general, the group agreed that the unit should be under the direction of at least one fully qualified doctor, with the necessary number of public-health nurses, midwives, sanitarians, and other auxiliary workers as

the service called for. It was agreed that specialist staff in various branches of public-health work would generally come from a higher level in the health administration.

The following points were brought out as the important considerations in providing doctors to work in rural areas :

1. Enforced service in rural areas for new practitioners;
2. Better remuneration;
3. Adequate living and working accommodation;
4. Professional attractions—clinical and laboratory facilities, promotion and refresher courses, etc.

The group realized the importance of using local doctors to help in the work.

It was pointed out in this connexion that doctors should be prepared " socially " as well as technically, in their undergraduate medical education, to take up their responsibilities in a modern society. To this effect, the public-health course in the Medical School of the University of New Zealand had been reorganized to include 3-4 months' internship training in a rural health centre, and similar trends of development were planned in India. The importance of changing the attitude of all doctors to recognize their social as well as technical responsibilities was mentioned. Doctors in health departments must be willing to listen to the health needs as expressed by the people themselves.

It was also emphasized that auxiliary workers should be recruited and trained locally in order that they might the more easily understand some of their own local customs and problems and be the more willing to work in rural areas. Many contributors to the discussions emphasized that rural health work must use locally recruited and trained persons. These could be of two types (1) auxiliary health workers, and (2) village health aides for more simple duties. The success of the programme in many countries was to be seen in this use of local health workers. Auxiliary workers must work under the supervision of qualified professional staff.

The group exchanged views on the various ways and means of financing rural health work. In certain countries, where local civil administration was well developed, the expenditure for a rural health unit constituted a part of the local government budget, with or without grants-in-aid from the central or provincial government. In some countries, a central system of finance was at present found to be the only way to cover the cost.

It was pointed out, however, that the most effective way of financing a rural health unit would be through some form of taxation, by the national, provincial, or local administrations. Contribution on a purely voluntary basis was not thought dependable.

Members of the group considered that without financial contribution the population in rural areas could certainly contribute free labour and substance-in-kind in participating in the health work as a form of self-help.

The group realized the importance of having rural health work closely integrated with other social and economic activities in the community. No members, however, had much experience in this respect. In a few countries, health work in selected rural areas had been developed in close co-ordination with other educational and agricultural extension work (for instance, in Morocco and Indonesia), but time had been too short to observe any results from such experiments. In El Salvador, the health demonstration area assisted by WHO had initiated an integrated development of health, education, agriculture, and public utilities services in a rural area under a unified board created by the central government. During the three years of operation, the health

work had developed very satisfactorily, and the development of other aspects was being planned.

RURAL SANITATION

The discussions of the group on rural sanitation, which were held on the basis of the definition of environmental sanitation as worded in the first and second reports of the WHO Expert Committee on Environmental Sanitation,[1, 2] showed a remarkable degree of unanimity. However, in the course of the discussion that definition was repeatedly stated not to be sufficiently broad, because it limits the control of environmental factors to those which exercise, or may exercise, a deleterious effect upon man's well-being. It was suggested that the definition of environmental sanitation be expanded to include activity for the conservation and development of natural resources to raise the standards of living in any community.

The extreme importance of environmental sanitation in any programme of national development was emphasized time and again. It was the opinion of the group that the development of a country, its resources, its power, and its industrial potential, can only be fully successful if accompanied by the development of environmental sanitation. Rural sanitation in particular was considered an essential part of public-health work in rural regions in general; in countries at the lowest level of development it was said to be the problem of first importance, and failure to solve basic problems of sanitation (such as utilization of organic wastes) was believed to be the cause of nomadism in some parts of the world.

Because rural sanitation has a direct bearing on the food-producing capacity, it should be a prominent part of the general plan of economic development in predominantly agricultural regions of the world. In order to ensure stability of environmental changes brought about by rural sanitation, it should be carried out with the support of the population. It was emphasized that there were no absolute solutions to problems of rural sanitation, and that they should be in proper relation to the level of development of the region. It was stressed that in many rural areas a simple approach to problems of rural sanitation, with the use of simple means within the resources of the area, can create major improvements.

Rural sanitation should embrace the disposal of wastes, water-supply, housing, control of insect and rodent vectors of disease, and food control. It was understood that occupational hygiene is included in this scope.

The extreme importance of the proper handling and treatment of human excreta and of their use for crop production was recognized. In view of the growing demands for production of food, the exhaustion of the former sources of plant nutrients, and the slight possibilities of an essential increase of cultivable surfaces, it was recognized that human excreta must continue to be conserved and utilized in vast areas of the world. The group recognized the importance of such storage of excreta as would preclude their use before the pathogenic germs had been practically destroyed, and recommended the composting of excreta with other categories of waste, either by a partly aerobic and partly anaerobic procedure or by the anaerobic process alone. The latter offers a number of advantages even in small economic units, without additional work, provided the composting is done by adequately controlled methods and under proper supervision. In fact, by proper manipulation and by the strict observance of certain fundamental prin-

[1] *Wld Hlth Org. techn. Rep. Ser.* 1950, **10**
[2] *Wld Hlth Org. techn. Rep. Ser.* 1952, **47**

ciples easily understood and practised, practically complete elimination of pathogenic germs and of helminthic ova can be achieved. Such a method of utilization was considered a satisfactory method of disposal. It was recognized that in some regions the pollution of ground surface was of such intensity and extent that long-term programmes of development of agriculture and rural sanitation combined with education would be necessary to improve the conditions. Such programmes should be established and put into operation.

While no compromise should be allowed on the quality of drinking water, the economics of water-supply should be duly considered in the choice of the supply system. In rural regions, purification or complicated machinery should be used only in regional water-supply systems of such magnitude as makes certain an adequate maintenance and control. The smaller the supplied region, the simpler should be the supply system and the less the dependence upon mechanical means and purification processes. Bored, dug, and driven wells of proper design are fully capable of furnishing safe water.

The magnitude of the problem of rural housing was unanimously agreed on. The chief factors impeding a desirable rate of progress were pointed out as being the high prices of land and of building materials, the scarcity of the latter and of the means for their production, and the poverty and ignorance of the rural population. Scientific knowledge of the factors influencing the micro-environment and the comfort of man—with particular reference to rural housing—should be extended by further research, for example, on the exploitation of solar energy and of heat storage in earth, rock, or water, and on the application of the evaporative cooling effect of vegetation with a high transpiration-rate. The possibilities of producing new and cheap building materials and methods, based on local resources, should also be studied.

Concerning the control of insect and rodent vectors, it was recognized that dependence upon chemical insecticides as a substitute for environmental sanitation measures in the control of certain insects, such as flies, was not warranted because of their ability to acquire a tolerance or resistance to the specific chemical. In certain circumstances, however, chemical insecticides do furnish a dependable, simple means of control.

In the course of the discussions, it was repeatedly stated that the interconnexion of various problems is of such an order as to impose as a necessity the study of the environmental factors as a whole in order to find the most economical and satisfactory solution for several problems at once.

As regard the material means for promoting rural sanitation, it was emphasized that no activity should be undertaken without the support and contribution of the local population, and that the various higher levels of administration should participate in the burdens in proportion to their respective interest in the problems. The least contribution from the local population should comprise unskilled labour, local transport, and local materials. The general policy of fostering a gradual increase in the level of local participation is recommended.

As financing was declared to be the gravest obstacle to rural sanitation, several ways were pointed out for the securing of funds, such as loans at low rates of interest, either direct or through co-operative societies, grants-in-aid with proportionate participation at various administrative levels, diversion of certain categories of revenue to rural sanitation, and measures for state guarantee of loans. The high price and the scarcity of materials were declared to be other important obstacles, which should be remedied to the utmost—if necessary, by

establishing public or co-operatively owned factories for basic materials such as cement or brick.

A co-operative movement, education of the people and of teachers, and proper legislation (but not that of a restrictive character) were recognized as being of paramount importance. Co-operative activities were especially emphasized, partly on account of their being "a school of democracy" and the most powerful means of self-help, which were considered to be the desirable goals of all means used to foster rural sanitation. The necessity of integrating the programme of rural sanitation into the framework of a general plan was emphasized. Moreover, it was recommended that such activities be extended to an international level through various international agencies, such as FAO, UNESCO, and WHO.

It was suggested that in this activity the appropriate role of the central government would be primarily that of stimulation, initiation, and supervision.

As to personnel, it was emphasized that no country can do the work on rural sanitation without adequately trained staff. The less developed countries can least afford to abstain from providing such personnel. Two categories were especially mentioned as essential: sanitary engineers (or public-health engineers), at least at the highest level of administration, and local workers, specially trained in short courses for specific kinds of work. It has been found desirable to introduce at each level of administration at least one worker of high calibre, with appropriate training, which should be conducted in the region of work and ought to be of such a nature as to enable the worker to recognize the importance of various problems and to select the most important one in any area. In maintaining a balanced training at all levels, it should be possible to develop in an orderly manner an extension of sources of personnel.

Rural sanitation projects should be conducted from a health or welfare centre. Such a centre should be in harmony with the existing administrative system.

ZOONOSES

The discussions on this subject were largely concerned with specific technical problems of different zoonoses and with the means of organizing zoonoses services in health departments, with particular reference to rural areas. The discussions clearly brought out the fact that zoonoses are of very great importance and often serve as a cause of disastrous losses to the health and economy of the rural population.

Technical aspects

The epidemiology of jungle yellow fever was explained in detail, and it was pointed out that perhaps the best measure of control of potential human infection lay in the control and eradication of *Aëdes aegypti*. This is true with respect particularly to possible international spread of the disease, and one of the recommended means for effective international surveillance and control is the submission of quarterly reports on *A. aegypti* indices in cities and ports near jungle yellow fever areas. Such reporting has already been adopted by the countries of Latin America through the Pan American Sanitary Bureau.

A report was given on the *Salmonella typhimurium* epidemic which occurred in Sweden during the summer of 1953. It was pointed out that the epidemic arose from contaminated meat emanating from one slaughter-house. The carrier-rate of *Salmonella* in cattle in Sweden was shown to be about 2%, and it is felt that most contamination of meat occurred in the slaughter-house because of faulty practices of hygiene. In addition, the unusually hot weather and a

failure of refrigeration facilities contributed to the widespread epidemic.

Since *Salmonella* organisms in domestic animals used for meat purposes are found principally in the enteric track, it was urged that slaughter-houses make provision for the handling of intestinal organs in a room set apart for this purpose in the abattoir.

The use of strains of *Salmonella* supposedly avirulent for man as a measure of rat control was severely condemned. The Danish strain of *Salmonella* frequently advertised for rat-control purposes is known to have caused many human infections, and this method of rat control is therefore considered to be very dangerous.

It was further pointed out that ducks' eggs were a very frequent source of *Salmonella* infection in human beings, and it was recommended that ducks' eggs sold to bakers should be pasteurized. In Holland, ducks' eggs sold to the public bear a stamp advising that they be boiled for at least 10 minutes before use.

Reporting of zoonoses

It was recognized that adequate reporting of zoonoses both in man and in animals is essential in order to gauge accurately the zoonoses problem in a particular country and to institute adequate control measures. The following list of notifiable diseases was recommended for inclusion among the communicable diseases normally reported within a country : brucellosis, anthrax, rabies, salmonellosis (identified by type), tuberculosis (identified by type), leptospirosis (identified by type), encephalitides (identified by type), rickettsioses (identified by type), hydatidosis, trichinosis, tularaemia, and psittacosis. These should all be reported by the health services and the zootechnical services. In addition, the following zoonoses should be reported where they are of local importance : plague, jungle yellow fever, trypanosomiasis, leishmaniasis, Rift Valley fever, glanders, melioidosis, cowpox, specific helminthic infections of animal origin, and fungous infections of animal origin. Of fundamental importance is the necessity of exchanging information on reports between the health services and the zootechnical services (livestock and veterinary). Reports of zoonoses should include regular reports from slaughter-houses and all laboratories dealing with communicable diseases.

It was pointed out that there are many difficulties in obtaining any sort of information from rural areas where health services are rudimentary or non-existent. In these areas it is not uncommon to find agricultural services more highly developed than health services, and the former can be taken advantage of in obtaining information on zoonoses in the area.

In rural areas, reporting can be initiated and organized by the following : local veterinarians and auxiliary personnel such as livestock inspectors, vaccinators, and the like; farmers' groups, agricultural advisers, and extension services; public-health nurses, sanitarians, and other health personnel; religious leaders, village chiefs, and even, when necessary, local police. The task of adequately informing these individuals and groups with respect to the zoonoses is considered briefly under the heading *Education and training*.

The presence of a zoonosis can be heralded either by a single human sentinel case or by an outbreak of the disease in animals. In the event of a human sentinel case, all possible zootechnical services should be warned to investigate the situation among the animals of the area. Conversely, when an outbreak of a zoonosis (anthrax, brucellosis, rabies, etc.) occurs in animals, the health authorities should take appropriate action with respect to the human population. It is evident that close collaboration between health and agricultural services must be

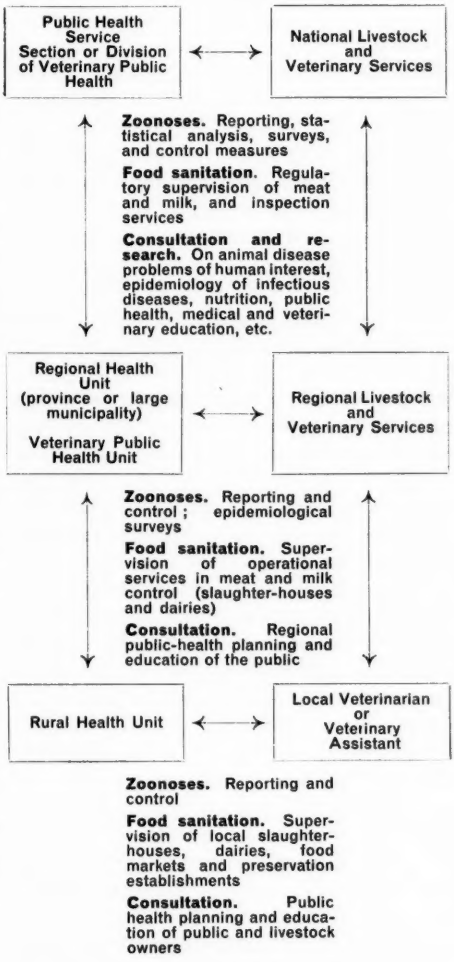
achieved for the successful implementation of control measures.

Laboratory services

Laboratory techniques for diagnostic purposes are similar, and in many instances identical, in human and veterinary medicine. Discussion brought out the obvious advantage of combining, wherever possible, human and veterinary diagnostic laboratories, especially in countries where there is a great deficiency of trained laboratory personnel. Many advanced countries in fact have already adopted this procedure, which has resulted in better laboratory services and reporting of diseases. Brucellosis was cited as an example in which veterinary medicine has had much more experience than human medicine in diagnostic procedures, and this experience can be incorporated and utilized in human diagnostic laboratories. Laboratory procedures common to human and veterinary medicine are found in such diseases as anthrax, rabies, salmonellosis, tuberculosis, leptospirosis, tularaemia, psittacosis, the rickettsioses, and the encephalitides.

Discussion brought out the fact that there was great need for public-health laboratories to have a concise laboratory manual with special reference to the zoonoses. It was pointed out that such a manual has already been prepared by WHO for at least one disease—rabies—and partially with respect to several other diseases—brucellosis, leptospirosis, bovine tuberculosis, and Q fever.

THE ORGANIZATION OF VETERINARY PUBLIC HEALTH IN THE NATIONAL PUBLIC HEALTH SERVICE


Public Health Service Section or Division of Veterinary Public Health
National Livestock and Veterinary Services
Zoonoses. Reporting, statistical analysis, surveys, and control measures
Food sanitation. Regulatory supervision of meat and milk, and inspection services
Consultation and research. On animal disease problems of human interest, epidemiology of infectious diseases, nutrition, public health, medical and veterinary education, etc.
Regional Health Unit (province or large municipality)
Veterinary Public Health Unit
Regional Livestock and Veterinary Services
Zoonoses. Reporting and control; epidemiological surveys
Food sanitation. Supervision of operational services in meat and milk control (slaughter-houses and dairies)
Consultation. Regional public-health planning and education of the public
Rural Health Unit
Local Veterinarian or Veterinary Assistant
Zoonoses. Reporting and control
Food sanitation. Supervision of local slaughter-houses, dairies, food markets and preservation establishments
Consultation. Public health planning and education of public and livestock owners

Organization of zoonoses services

Much discussion was devoted to the accompanying diagram, which outlines the organization of services on zoonoses in a fairly advanced form. The basic feature of this organization is the establishment of close collaboration between health and zootechnical services at all levels of organization—central, provincial, or rural. It was stressed that, despite the very limited number of health and veterinary personnel existing in many countries today, immediate steps can be taken to bring about a marked

improvement in zoonoses control through better use of certain individuals and groups to be found in almost all countries. Experience in many countries has shown that one of the best ways to implement closer co-operation between health and agricultural authorities is to establish a veterinary public-health unit within the health services, at the central or federal level, and, if possible, also at the State, provincial, or municipal level.

Education and training

Emphasis was placed on the necessity for better training of all health workers in connexion with rural problems. It was pointed out that, in both advanced and underdeveloped countries, there are serious deficiencies in the curricula of medical and veterinary undergraduate schools, as well as of schools of public health giving postgraduate training, in connexion with the zoonoses and with food control.

Short training courses were indicated as the best means for the education of personnel in rural areas which can be brought into the zoonoses control programmes (veterinary assistants, agriculturists, sanitarians, etc.). In order to assist these persons and allied groups, such as farmers' organizations and religious leaders, a simple manual on the zoonoses was considered a very useful guide.

Since conditions differ so markedly in various areas of the world, pilot projects in a typical rural area were suggested as a means of determining organizational techniques suitable to the country concerned. The control of rabies and hydatidosis was suggested as a good subject for such pilot projects, because encouraging results can usually be obtained in the control of these two diseases, while at the same time an opportunity is provided to learn and solve organizational questions affecting zoonoses in general.

It was concluded that undergraduate courses in public health should be combined undertakings of medical and veterinary schools, not only with respect to the zoonoses and food control, but also with respect to other aspects of health teaching. Postgraduate training in public health should certainly be conducted in combined courses for physicians, veterinarians, sanitary engineers, nurses, and other persons entrusted with the health of people.

DOCUMENTATION SUBMITTED FOR THE TECHNICAL DISCUSSIONS AT THE SEVENTH WORLD HEALTH ASSEMBLY

1. " Background to Rural Health ", by Professor A. Stampar.
2. " The Development of Health Units in Rural Areas ", by Professor F. Brockington.
3. " Rural Sanitation ", by Professor M. Petrik.
4. " The Zoonoses in their Relation to Rural Health ", by Professor K. F. Meyer.
5. " Demographic and Health Statistics Relating to Urban and Rural Areas ", by Dr. S. Swaroop.
6. Select Bibliography on Rural Hygiene.

AWARD OF LÉON BERNARD FOUNDATION PRIZE

As in previous years, the World Health Assembly had to award the Léon Bernard Foundation Prize to reward the author of an important contribution to social medicine. The prize was awarded this year to Professor Jacques Parisot (France) " for his outstanding contribution and practical achievements in the field of social medicine ".

The President of the Assembly described in the following terms the brilliant career of Professor Parisot :

"... this is the fifth occasion on which the Léon Bernard Foundation Prize has been awarded since the award was established exactly 20 years ago. When I read you the names of the four previous prizewinners, you will agree that the award of this prize has been reserved for really outstanding achievement in the field of social medicine. The names are : Dr. Wilbur A. Sawyer, Dr. René Sand, Professor C.-E. A. Winslow and Dr. Johannes Frandsen. Today Professor Jacques Parisot takes his place in this most distinguished group and, in adding his name to those of the others I have mentioned, I feel that we are fully maintaining the tradition of excellence previously set.

" Professor Parisot was born in 1882. After brilliantly completing his medical studies his first interest was in a career as pathologist. In 1911 he was appointed Professeur agrégé at the Faculty of Medicine in his native city of Nancy, where he taught medical pathology. After the 1914-18 war he began to devote some of his energies to the control of tuberculosis, in which he had become interested as a result of Léon Bernard's teaching, and in 1920 he became definitely conscious of his real vocation in the field of social medicine. In 1927 Professor Parisot became titular holder of the Chair of Hygiene and Social Medicine and he immediately set about creating the Nancy Institut régional d'Hygiène, with its threefold mission of health activities, research, and teaching, thus foreshadowing a formula the value of which is today universally recognized. By the establishment of the departmental Board of Social Hygiene, of which Professor Parisot is still the President, he was enabled to extend his health and social activities progressively from tuberculosis control, which was his first interest, to the control of venereal diseases, to maternal and child health activities, to mental-health activities and to health education. Above and beyond the control of disease—but with that as his basis—was the broad aim of the creation of that ' state of complete physical, mental and social well-being ' which twenty years later was to be enunciated in the Constitution of the World Health Organization as the definition of health.

" It is not possible in the time at my disposal to enumerate the very long list of Professor Parisot's decorations and official titles. Nor can I do more than mention a very few of the most characteristic features of his life work, which includes forty years' teaching of medicine and hygiene and several hundreds of personal publications.

" In 1949 Professor Parisot, then nearing the end of his professorial career, was appointed to the highest post, that of Dean of the Faculty of Medicine, Nancy. He has been instrumental in reorganizing and modernizing this medical school, and he has endeavoured to build in such a way as to leave to those who come after him an establishment worthy of its renown. He has also set about creating a centre for the occupational and social rehabilitation of physically handicapped persons, in the establishment of which the Faculty of Medicine and the social security

organizations co-operate with the administrations concerned—a further example of co-ordination of effort.

" Although Professor Parisot made his whole career at Nancy, his activities and particularly his influence have extended to the national and international levels. He became, and still is, adviser to the French Ministries of National Education and of Public Health and Social Security. He is a member of the most important technical committees. Among those of which he is chairman may be mentioned the Standing Committee for the Study of Hygiene and for Health and Social Activities, the governing body of the National School of Public Health, the Administrative Council of the National Institute of Hygiene, the French Committee on Social Service, and the Technical Committee on Health and Social Services and Social Security Organizations. These important posts, which enable Professor Parisot to play a decisive role in the health and social policy of the country as a whole, correspond to his threefold vocation of teacher, investigator, and creative worker.

" He is also adviser to the Ministry of Foreign Affairs, for in addition to his local, regional and national activities Professor Parisot has made an inestimable contribution in the field of international health activities. As Léon Bernard's alternate, Professor Parisot represented France on the Health Committee of the League of Nations from 1929 onwards. In 1934 he succeeded Léon Bernard on that committee, and in 1937 he became its Chairman. From 1934 to 1939 he was closely associated with the activities of the International Labour Office.

" In Europe and in the United States of America he has accomplished a number of technical missions and participated in various study groups and conferences. As chief of the French delegation to the International Health Conference in New York, on 22 June 1946 he signed the Constitution of the World Health Organization. He has led the French delegation to the World Health Assembly each year since 1948. In the same field, he was designated by the French government to serve on the WHO Executive Board, of which he was unanimously elected Chairman in 1951. The Director-General of the World Health Organization has also invited him to sit on a number of expert committees, in particular the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel, and the Expert Committee on Health Education of the Public.

" Professor Parisot's life-work is thus a magnificent example of how achievements in public health and social medicine realized in a comparatively small geographical area—in this case in one of the ninety departments of France—assert their beneficial effects over a wide field on both national and international planes."

In reply, Professor Parisot said :

" ... the Léon Bernard Prize is without doubt the highest distinction a medical man can receive in a career devoted to public health and social progress, since its award confirms the verdict of competent elements in a world organization...

" It was at its meeting of 4 May 1939 that the League of Nations Health Committee, which was instrumental in creating this Foundation in memory of one of its most distinguished members, awarded the prize for the first time to Dr. Wilbur Sawyer, Director of the International Health Division of the Rockefeller Foundation. In so doing it honoured at one and the same time the man who obtained the victory over yellow fever, and the great Foundation which for a number of years had co-operated in many of the Committee's undertakings. The World Health Organization has now inherited the right to award the prize, and since 1951 the recipients have been successively Dr. René

Sand, Dr. Winslow and Dr. Frandsen. It is a great honour for me to have my name associated with those of such distinguished colleagues. Dr. Frandsen has accomplished a great and valuable work in Denmark... Praise is due to him for this work, and I would also thank him for his kindness to me personally... Professor Winslow... has always shown me a friendliness which is warmly reciprocated; his universal reputation as an eminent public-health administrator and active protagonist of health education and of social medicine was still further enhanced by his recent monograph on *The Cost of Sickness and the Price of Health* and by his lecture to the Fifth World Health Assembly on the economic value of preventive medicine.

" It is with deep emotion that I come to the name of René Sand. By his death not only Belgium but the whole world is deprived of an eminent teacher and an enlightened sociologist whose qualities of mind and heart made him a veritable apostle of social medicine who was listened to, respected and honoured in all countries and in all circles... Many tributes were paid to René Sand and his work, in particular by WHO in its *Chronicle*. In associating myself with that tribute, and in assuring our Belgian friends of our faithfulness to his memory, I am certain I am interpreting the wishes of all here present.

" The honour bestowed on me has, however, another significance in my eyes : it has also the spiritual significance that attaches to a memory, the memory of the master and friend to whom I was colleague and later successor on the Health Committee... You will, I am sure, understand the desire and the sense of sacred duty which today lead me to evoke the figure of this great man so that you may know him better, so that you may see him against the background of the Health Organization of the League of Nations which has now been revived in a new and greatly expanded form in the World Health Organization...

" Léon Bernard was born in 1872 in Lorraine. He studied medicine in Paris, where his intellectual qualities and capacity for hard work enabled him to rise quickly and brilliantly to the rank of ' médecin des hôpitaux ', and in 1910 of ' professeur agrégé ' in general medicine. In the first phase of his scientific career his work was varied, betraying the original turn of mind, always in search of new and useful outlets and anxious to become conversant with the various branches of medical science, with the clinical as well as the laboratory aspects. Although he was increasingly interested in tuberculosis he wished, before devoting himself particularly to that subject, to provide himself with a solid foundation for such specialization. As he wrote later : ' A man who wishes to engage in some specialized branch of medicine must be thoroughly permeated, as it were, with general medicine '. This is a principle which applies even more today, at a time when all kinds of medical specialities are developing, and your expert committees on professional education have rightly insisted on it. Léon Bernard's studies on the clinical and therapeutic aspects of tuberculosis, and on case-finding and prevention of the disease, have now become classics. Because of his enormous contribution to the prevention of this disease —especially the protection of children— he was entrusted in 1917 with the task of directing and organizing the tuberculosis control campaign which was part of the large-scale social health programme started in France at the end of the war. Appointed titular professor of hygiene and preventive medicine in 1920 and President of the Conseil supérieur d'Hygiène, his reputation in that field increased both nationally and internationally, not only on account of his teaching and scientific studies, but also on account of his practical work. Nevertheless,

phthisiology remained his favourite subject. He greeted the discovery of BCG by his friends Calmette and Guérin with enthusiasm and defended it ardently and convincingly; he also established the fundamental principles, which still hold good today, on which rational tuberculosis control must be based. In 1928 he was appointed to the first French Chair of clinical tuberculosis. His wide experience in hygiene and phthisiology and his abilities as organizer and promoter enabled him to make of this clinic a focus for all those in national or international life who were interested in these vital problems.

" In addition, being a man with a deep sense of duty and great goodness of heart as well as a distinguished physician, he actively supported the social services and the various forms of assistance to the sick. As one of his closest colleagues, our friend Professor Robert Debré, wrote: ' Léon Bernard, possessed of a brilliant mind and master of the right and eloquent phrase, made the relief of human suffering his constant goal; he gathered around him a veritable constellation of students and friends who knew that his somewhat cold exterior hid a never-failing devotion and a character of unswerving integrity.'

" It was for these reasons that Léon Bernard, delegated by the French Government to the Health Committee of the League of Nations, worked for that body from the time it was established and became one of its most eminent members. From 1921 on he was a member of the Epidemic Commission, which was set up as an emergency measure by the League of Nations and which was the earliest form of the Health Organization. Subsequently, he took an active part in its development in various fields, among which were the control of malaria and the various communicable diseases—bilharziasis, leprosy, tuberculosis, syphilis—biological standardization, health statistics, international nomenclature of causes of death, housing, nutrition, control of narcotic drugs, maternal and child health, etc...

" Léon Bernard not only played an eminent role in France, but in almost every part of the world he successfully pleaded in favour of modern methods of teaching medicine, of health protection and of social progress—always in the service of humanity. It is therefore understandable that on his death in 1934, the Health Committee of the League of Nations decided to perpetuate his memory by founding the prize which bears his name...

" Today, circumstances have brought about a situation whereby the representative of a young African republic which is rapidly rising both economically and socially holds the office of President of this Assembly, and has handed to a university professor of old Europe the prize with which you have honoured him. Does not this symbolize the progress and unity we work and hope for, the attempt, not by political but by purely human, loyal, fruitful alliance, to bring to all men more health, well-being and prosperity in their lives, and also greater happiness and security in a peaceful world ?

" In these particularly distressing times when people who at the bottom of their hearts wish to draw closer together have difficulty in finding a common meeting-ground, what better could they find than our work which brings together so much knowledge and goodwill ? Is it not from this common endeavour that a new conception of life will spring and spread throughout the world, capable it may be hoped of overcoming one day the old and still formidable cult of force and national egoism ? "

AWARD OF THE DARLING FOUNDATION PRIZE

The Darling Foundation Prize, which is awarded to the author of an original work on the pathology, etiology, therapy, or prophylaxis of malaria, upon recommendation of the WHO Expert Committee on Malaria, was awarded this year for the fourth time. The recipients were Dr. G. Robert Coatney (United States of America) and Professor George Macdonald (Great Britain).

The President of the Assembly briefly outlined Dr. Coatney's career :

" Dr. G. Robert Coatney, who is a citizen of the United States of America, was born in May 1902, and is now on the staff of the Laboratory of Tropical Diseases in the National Microbiological Institute of the Public Health Service of that country. He holds the B.A. and M.A. degrees of the University of Nebraska and a Ph. D. degree of Iowa State. He started his career as professor of biology and zoology in Nebraska from 1926 to 1938. He was then appointed protozoologist in the Public Health Service of the United States, to which he is still attached. His scientific work has dealt with blood protozoa and particularly with malaria parasites and with the chemotherapy of malaria, in connexion with which he has published a large number of important works."

As Dr. Coatney was unable to attend the Assembly in person, the President presented the prize to the chief delegate of the USA, to be handed over later to Dr. Coatney.

The President then summarized the career of Professor Macdonald :

" Professor George Macdonald is a British subject, born in June 1903. He has a degree of M.D. and D.T.M. of the Liverpool School of Tropical Medicine and Hygiene and has a diploma of public health of the University of London. He started his career as a research worker in Sierra Leone in 1924 and followed this with similar work in India and Assam between 1929 and 1937. After a short assignment to malaria control in Ceylon, he joined the Royal Institute of Tropical Hygiene in London, of which he has been the Director since 1945. He has been professor of tropical medicine in the London School of Hygiene and Tropical Medicine since 1946. His scientific work deals generally with tropical hygiene and public health and in particular with epidemiology and the control of malaria."

Receiving the award, Professor Macdonald in a short speech paid tribute to the man it commemorates :

" Samuel Taylor Darling, in whose memory you, Sir, have just given me this award, was a great man. At a time when, in a flash of enthusiasm at the beginning of this century, it might have been thought that we knew enough, Samuel Taylor Darling set up a tradition of continuing inquiry and research constantly focused on one single primary objective—the control of disease, particularly the control of malaria. He carried that standard aloft until his untimely death in the service of the League of Nations. In that way he set the form of the attack against malaria and against some other tropical conditions for much of this century. He is commemorated by some material matters, notably by a small stone in very beautiful surroundings at Brummana in the Lebanon, and in this award which you have just given me. But he is particularly commemorated in the minds of all people who believe that the improvement of the health of tropical peoples depends on continuing scientific inquiry.

"So, the World Health Organization, when it passed its resolution some seven years ago to attempt the elimination of malaria as a public-health problem throughout the world, made itself pre-eminent amongst the organizations which have attempted to control this disease. It was a brave resolution—a brave resolution possible only to an organization which was young and was feeling its strength. But the passage of events since that time has shown that it did not overestimate its strength, and the campaigns which have been nurtured, sponsored and encouraged by this organization have gone a very long way already to achieving that object, having eliminated malaria as a public-health problem from very great tracts of the world, and have demonstrated that the achievement of the full ambition is a perfect possibility.

"It is a great honour to be given this award in the name of Samuel Taylor Darling and by the World Health Organization. I accept it humbly as a representative of the many scientific workers who have the same ambition."

DR. JOSEPH N. TOGBA

President of the Seventh World Health Assembly

Dr. Joseph N. Togba was born in Sasstown, Sinoe County, Liberia, in 1915. He studied at Friends University in Wichita, Kansas, and he obtained his medical degree at Meharry Medical College, Nashville, Tennessee, in 1944. Later, he specialized in public health at Harvard University. Appointed Physician to the Liberian Government in 1946, Dr. Togba attended, as the Liberian delegate, the International Health Conference held in New York in June of the same year. A member of the Interim Commission of the World Health Organization from 1946 to 1948, he was appointed Director of Public Health and Sanitation of the Republic of Liberia in 1947 and Director-General of the National Public Health Service in 1953. Since the establishment of the World Health Organization, he has represented his country at each World Health Assembly. During his years of close association with WHO, he has held a number of high offices, including the chairmanship of the first session of the Regional Committee for Africa in 1951, the vice-chairmanship of the Executive Board in 1951, and the vice-presidency of the Fifth World Health Assembly in 1952. Dr. Togba is also Chairman of the Medical Board of Liberia and President of the Liberian Medical Association.

MASS BCG VACCINATION CAMPAIGN

Series of Reports on Vaccination of 14 Million Persons Concluded

One of the responsibilities of the Tuberculosis Research Office of the World Health Organization has been to assemble and prepare for publication statistics of the mass BCG vaccination programmes conducted by the International Tuberculosis Campaign (ITC). This task has now been completed with the publication of *BCG Vaccination in Finland and the Finnish Vaccination Index* (see p. 244).

The International Tuberculosis Campaign grew out of an association formed very soon after the Second World War by the Danish Red Cross, the Norwegian Relief for Europe, and the Swedish Red Cross to undertake mass BCG vaccination in several European countries as an emergency measure against tuberculosis. In March 1948, the United Nations International Children's Emergency Fund (UNICEF), responsible for relief work among children and adolescents in war-torn countries, joined the three Scandinavian voluntary organizations to assist in conducting mass BCG vaccination on an international scale; it was to this partnership that the name International Tuberculosis Campaign was given.

Before it officially turned over its activities to WHO and UNICEF in June 1951, the ITC assisted 23 countries in carrying out mass BCG vaccination campaigns, tuberculin-testing a total of nearly 30 million persons and giving BCG vaccination to almost 14 million. During this three-year period, an international staff of over 200 doctors and nearly 300 nurses, as well as over 1,000 national doctors, nurses, and BCG technicians, participated in the programme. In each campaign the ITC generally established the pertinent medical, organizational, and statistical methods and assisted with personnel and supplies until the population in the age-groups aimed at by the mass campaign had been covered; where the national government had plans for continuance of BCG vaccination, the ITC left the necessary equipment used during the international phase. The national government normally paid such campaign expenses as could be met in the currency of the country. The total ITC expenditure amounted to approximately $4,942,000; national expenditures are estimated to have equalled this amount.

Not surprisingly, the unprecedented scale and geographical coverage of these vaccination campaigns gave rise to a good many problems for which there were no answers. The need for a systematic and carefully controlled investigation of BCG vaccine and vaccination became increasingly apparent. Therefore, at the invitation of UNICEF and ITC in the fall of 1948, a field survey was made, and a report was presented to the Joint Health Policy Committee of UNICEF and WHO on the possibilities for scientific research in connexion with the mass BCG-vaccination programmes. As a result, the World Health Organization established the WHO Tuberculosis Research Office in February 1949 in Copenhagen.

One of the first responsibilities that the Tuberculosis Research Office agreed to undertake was to direct the collection of BCG-campaign statistics and to analyse and prepare the material for publication : the Finnish report is the last in the series of statistical publications documenting the work

of the ITC in 17 countries. As shown in the accompanying table, these reports cover 22 million persons tuberculin-tested and 11 million vaccinated—three-fourths of the total number tested and more than 80% of those vaccinated during the entire ITC programme. No reports have been prepared for the campaigns in six countries : in Italy and Mexico the ITC assisted in limited demonstration programmes only; in Hungary, ITC participation was terminated prematurely; in Ceylon, India, and Pakistan only a small proportion of the population had been covered when the campaigns were taken over either by the national government or by WHO and UNICEF.

NUMBER OF PERSONS GIVEN TUBERCULIN TEST OR BCG VACCINATION IN MASS CAMPAIGNS ORGANIZED IN 23 COUNTRIES BY THE INTERNATIONAL TUBERCULOSIS CAMPAIGN

Country	Tested	Vaccinated
Documented		
1. Czechoslovakia.	3,407,318	2,084,271
2. Poland.	4,729,033	2,284,829
3. Syria	265,285	115,582
4. Israel	365,298	208,851
5. Malta	54,968	38,770
6. Tunisia	601,502	265,683
7. Ecuador	646,702	346,242
8. Austria	654,293	452,374
9. Morocco . . .	2,207,507	1,009,589
10. Tangiers . . .	21,089	7,493
11. Greece	1,464,627	1,009,804
12. Yugoslavia . .	3,010,238	1,554,862
13. Egypt	2,104,311	661,128
14. Algeria	1,670,665	675,664
15. Finland	750,000	362,000
16. Lebanon . . .	43,463	28,311
17. Palestine Refugees . .	211,323	148,137
Total	22,207,622	11,253,590
Not documented		
1. Italy	12,550	6,576
2. Mexico	179,975	83,880
3. Hungary . . .	1,952,024	771,853
4. Ceylon.	306,707	122,764
5. India	4,068,515	1,351,546
6. Pakistan	949,987	284,500
Total	7,469,758	2,621,119
Grand total (23 countries)	29,677,380	13,874,709

In most of the countries, the setting up of statistical reporting methods and the training of national personnel in the techniques of maintaining the records were the responsibility of an ITC statistician. Data on persons tested and vaccinated were recorded on individual cards in the field and sent to the central campaign office of the country. From the thousands, sometimes millions, of individual cards, the statistical staff made tabulations, according to age and sex, of the tested and vaccinated by district, as each district in a campaign was completed. These preliminary data, known by the field staff as the D-form statistics, were forwarded to the Tuberculosis Research Office for analysis. These D-form statistics have provided most of the material for the documentation of the campaigns; in spite of the extent and complexity of the programme, the data are fairly uniform and comparable.

The reports follow the same general pattern. A brief outline of the campaign is given : the development and special problems, the extent of national and international participation, and plans for continuing BCG vaccination. A discussion of the completeness and accuracy of the statistical material is also included, followed by tabular analysis and summary discussion of the D-form statistics. Tabulations of the numbers of persons tested and vaccinated and the percentages of tuberculin positives are given in detail by age, sex, and administrative division of the country.

Four of the reports, those from Syria, Ecuador, Greece, and Egypt, also include

a separate section on post-vaccination testing. In these countries, it was possible to arrange for specially trained teams to go back and retest sample groups of the vaccinated population. The sample groups were selected by geographical area of the country and by batch of vaccine to obtain as broad a picture of post-vaccination sensitivity as possible. In all four countries the retesting results showed that the allergy in children vaccinated in the mass campaign was appreciably lower than expected. The reasons for such results are not yet clear and certainly require further assessment work.

Individually, the reports should contribute critically to the tuberculosis control work of the country : in some countries, the mass campaign statistics provide the first tuberculin-sensitivity figures available; in countries with little national tuberculosis morbidity and mortality statistics, the tuberculin-sensitivity figures stand as the most reliable yardstick of the situation to date. Together, the series of reports provides a permanent record of what is probably the largest, most uniformly carried out immunization programme ever done. And its value may well increase with time, for the mass vaccination programmes have distorted the pattern of tuberculin sensitivity for at least a generation to come. Contrary to general belief, it is not possible to differentiate with any precision between natural tuberculin sensitivity and BCG-induced sensitivity. Thus indexes of tuberculosis prevalence based on tuberculin-test results will for many years be hopelessly distorted by the large vaccinated population. In future epidemiological studies of tuberculosis in any of the International Tuberculosis Campaign countries, it will be of the utmost importance to have the tuberculin-sensitivity figures at the time of the mass campaign and detailed, accurate statistics on the population vaccinated. In this respect the reports may well serve as the basis of and as a source of reference for future tuberculosis control activity in those countries.

The Finnish report differs from the other country reports, just as the campaign differed from other campaigns. Finland was the first of the 23 countries assisted by the ITC in a mass BCG-vaccination campaign : the campaign was already under way when the ITC joined, and the operation of the programme remained in the hands of the local authorities. The ITC, the Tuberculosis Research Office, and the Finnish authorities, however, recognized the possibility that the Finnish campaign might offer an opportunity not afforded by any other campaign to learn something about the course of tuberculosis in a general population after a mass BCG programme had been carried out. This opportunity arose from the coincidence of several factors : at the time of the campaign, Finland still had a large number of tuberculosis deaths (an annual rate of about 150 per 100,000 population). Moreover, within 18 months a large proportion of the population 0-25 years old had been given BCG vaccination, and individual records for persons tested and vaccinated were assumed to be available and complete. Reports of current deaths from tuberculosis could be made available, and trends in tuberculosis death-rates could be evaluated in the light of mortality statistics available from 1878 onwards.

It was therefore decided to establish a special co-operative research project in Finland which might be expected to give some indication of the effect of the mass campaign through a detailed study of tuberculosis mortality in the vaccinated, the tuberculin positives, and the general population, against a background of mortality trends over a period of many years. For this purpose the so-called Finnish Vaccination Index was prepared : a name-file recording tuberculin tests and vaccinations of some 850,000 persons. By matching death certi-

ficates against the Vaccination Index in the coming years, it should be possible to determine, fairly accurately, who among those dying of tuberculosis had been vaccinated with BCG, and who had been naturally positive to tuberculin and therefore not vaccinated. It has been clearly recognized from the beginning that the project could not provide decisive evidence of the effect of BCG on tuberculosis morbidity and mortality; such evidence requires that a group of tuberculin negatives deliberately not be vaccinated, to serve as controls. No such group could be segregated in Finland or, indeed, in any of the mass campaign countries. But if anything can be learned about the effect of a mass BCG-vaccination campaign on the tuberculosis mortality in a general population, it should be in Finland that this is possible.

LIST OF REPORTS ON MASS BCG VACCINATION PUBLISHED BY INTERNATIONAL TUBERCULOSIS CAMPAIGN *

1. *Mass BCG vaccination in Czechoslovakia, 1948–49 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1950. 103 pages
2. *Mass BCG vaccination in Poland, 1948–49 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1950. 134 pages
3. *Mass BCG vaccination in Syria, 1950 ; with special reference to statistics on BCG vaccination and pre- and post-vaccination allergy* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1951. 44 pages
4. *Mass BCG vaccination in Israel, 1949–50 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Mette Søegaard. Copenhagen, 1951. 34 pages
5. *Mass BCG vaccination in Malta, 1950 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Mette Søegaard. Copenhagen, 1951. 28 pages
6. *Mass BCG vaccination in Tunisia, 1949–51 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1952. 42 pages
7. *Mass BCG vaccination in Ecuador, 1950–51 ; with special reference to statistics on BCG vaccination and pre- and post-vaccination allergy* by I-Chin Yuan & T. Z. Henriksen. Copenhagen, 1952. 41 pages
8. *Mass BCG vaccination in Austria, 1948–50 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & E. E. Petersen. Copenhagen, 1952. 39 pages
9. *Mass BCG vaccination in Morocco and Tangier, 1949–51 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Mette Søegaard. Copenhagen, 1952. 42 pages
10. *Mass BCG vaccination in Greece, 1948–51 ; with special reference to statistics on BCG vaccination and pre- and post-vaccination allergy* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1952. 56 pages
11. *Mass BCG vaccination in Yugoslavia, 1948–51 ; with special reference to statistics on tuberculin testing and BCG vaccination* by I-Chin Yuan & Mette Søegaard. Copenhagen, 1952. 57 pages
12. *Mass BCG vaccination in Egypt, 1949–52 ; with special reference to statistics on BCG vaccination and pre- and post-vaccination allergy* by I-Chin Yuan & Jørgen Nyboe. Copenhagen, 1953. 55 pages
13. *Mass BCG vaccination in Algeria, 1949–52 ; with special reference to statistics on tuberculin testing and BCG vaccination* by Jørgen Nyboe & Mette Søegaard. Copenhagen, 1953. 49 pages
14. *BCG vaccination in Finland and the Finnish Vaccination Index* by Erik Iversen & Erik Hansen. Copenhagen, 1953. 41 pages
15. Lebanon, Country Report. In : *Second Annual Report of the International Tuberculosis Campaign*. Copenhagen, 1950. Pages 248–255
16. Palestine Refugees, Country Report. In : *Second Annual Report of the International Tuberculosis Campaign*. Copenhagen, 1950. Pages 261–271

* A limited number of these reports are available in English only ; they can be obtained on request to the Tuberculosis Section, World Health Organization, Palais des Nations, Geneva, Switzerland.

Review of WHO Publications

THE PRESENT STATUS OF PENICILLIN THERAPY *

In 1854, just a century ago, Paul Ehrlich was born. Through his discovery of effective chemotherapy in the management of syphilis (1910), new vistas for the alleviation of human suffering were opened. The era of metal chemotherapy which followed has only recently been superseded by the antibiotic period, which began with the discovery of penicillin by Sir Alexander Fleming 25 years ago, and which gained momentum during the Second World War. While Ehrlich's discovery of the therapeutic effect of Salvarsan was the result of his quest for a one-injection treatment in syphilis, this goal was only to be reached in recent years with the introduction of the antibiotics. Starting with the demonstration of the lethal effect of penicillin on *Treponema pallidum* by John Mahoney (1944) and with the subsequent discovery of long-acting repository penicillin salts or preparations, a complete reorientation has taken place in the treatment of syphilis and the other treponematoses during the last decade. It is now possible effectively to treat these infections in their early stages with single injections of the antibiotic and to arrest them in their latent and late stages.

As treponemes have not shown so far any resistance to penicillin, the widest possible use of this antibiotic has been advocated by many health authorities in recent years. In this field, the World Health Organization has encouraged international activities by holding symposia on syphilis (Paris, 1950; Helsinki, 1950) and on yaws (Bangkok, 1952) in an effort to further the exchange of scientific information. It has been shown that penicillin can now be applied to cases and contacts on a mass scale in populations where the treponematoses are endemic, and in recent years many health administrations have organized effective mass campaigns against syphilis and yaws. The epidemiological basis and the prospects for such programmes have been described in a series of publications by WHO in recent years.

While the introduction of penicillin as a practical, inexpensive drug has facilitated syphilis control, a warning against over-optimism was given at the Technical Discussions at the Sixth World Health Assembly,[1] where it was pointed out that, while one element in the control of the treponematoses has been simplified, further emphasis must be put on case-finding and other aspects of control if ultimate success in eliminating syphilis is to be attained

Volume 10, number 4, of the *Bulletin of the World Health Organization* is devoted to outlining the present status of penicillin therapy in syphilis, and it is on the results achieved in the treatment of syphilis that the application of penicillin to the other treponemal infections is based. At the same time some examples are given of types of activities which WHO may be called on by governments to undertake as a preliminary to the organization of broader control programmes. No attempt has been made to discuss the experience of health administrations in these broader public-health programmes; for this the reader is referred to a

* This is reproduced, with slight changes, from the introduction to a recent number, devoted to syphilis, of the *Bulletin of the World Health Organization.*

[1] *Chron. Wld Hlth Org.*, 1953, 7, 203

recent issue of the *Chronicle of the World Health Organization*.[2]

The authors of the first paper in this *Bulletin*—O. Idsoe, T. Guthe, S. Christiansen, P. Krag & J. C. Cutler—outline the basis for penicillin treatment in syphilis, the effect of time-dosage relationships, the choice of penicillin preparations, and modes of administration; they also discuss the reaction of the host to infection with *Treponema pallidum*. A special section is devoted to the question of syphilis in the incubation period and the prophylactic and abortive treatment of contacts.

Possible advantages of adjuvant metal-therapy in penicillin treatment of early syphilis are discussed in a second paper, by J. K. Shafer, L. S. Usilton & E. V. Price, on the basis of long-term studies carried out by the Public Health Service in the USA since 1945.

It is evident from the literature that the treatment of syphilis differs widely in the clinics of different countries and indeed within the same country. While it is believed that the introduction of penicillin will eventually permit more uniformity, no world-wide study of the preparations, schedules, and treatment regimens used had been made up to 1953. On the basis of material collected by WHO in that year, R. R. Willcox analyses the information collected from 277 leading university and venereal disease clinics in all WHO regions, illustrating the current trend towards general acceptance of penicillin alone in the treatment of early syphilis.

In a fourth paper, the preliminary results of the use of a new repository penicillin salt—benzathine penicillin G (*N,N'*-dibenzylethylenediamine dipenicillin G)—in the treatment of early infectious syphilis are presented by J. K. Shafer & C. A. Smith. This salt is now available in aqueous suspension and may obviate the need for the use of repository PAM preparations containing procaine and oil (to which some persons are allergic) in clinic practice in urban areas. With this salt treponemicidal blood-levels of penicillin can be obtained of longer duration and with lower doses than is the case with PAM, and the initial results in secondary syphilis are encouraging. So far, however, this preparation has not been shown to be practical in mass programmes in rural areas where the work is carried out by mobile field teams.

In two other papers, aspects of the problem as it presents itself to the health administrations and WHO are illustrated. The paper by S. Christiansen points to the type of data and the multiplicity of information sought by a WHO consultant in order to appraise the nature and extent of the syphilis problem in a country (Turkey), while that by A. A. El Ghoroury on the syphilis problem in Saudi Arabia brings out some of the features of field surveys in a national syphilis-control programme of a limited nature.

[2] *Chron. Wld Hlth Org.*, 1954, **8**, 37

New Series of Cholera Studies

The first of a series of cholera studies by Dr. R. Pollitzer appeared in Volume 10, number 3, of the *Bulletin of the World Health Organization*, issued recently. In this study, Dr. Pollitzer outlines the history of the disease from its earliest recorded appearance up to 1923 and describes its geographical distribution. He indicates the origins and main routes of the six great pandemics and discusses the possible causes of the variations in mortality which accompanied them. This series of studies will later be published by WHO as a monograph on cholera, in the same way as Dr. Pollitzer's work on plague, which appeared earlier this year.

CURRENT PROGRESS IN RABIES RESEARCH *

Since Pasteur's introduction in 1885 of prophylactic vaccination against rabies in man, relatively few real innovations in this field have occurred. However, since the First World War, several new departures in rabies research have produced results which have greatly influenced the handling of the rabies problem. Among these are modifications in methods of vaccine preparation and potency testing, the application of antirabies hyperimmune serum in the prophylaxis of rabies in man, and the mass vaccination of dogs, including the use of living modified virus vaccine produced in chicken embryos, for the control of rabies in animals.

It is interesting to note that antirabies serum was first proposed as early as 1889, and tried on a very limited scale after 1911, but because of difficulties in evaluation, and a negative attitude to this idea, the use of serum remained practically dormant until fairly recently. Careful studies in laboratory animals, started in 1936, and intensified in the past few years, have shown almost conclusively the value of serum in rabies prophylaxis; and on the basis of these results the WHO Expert Committee on Rabies, in its second report,[1] advocates the use of serum under specified circumstances. Similarly, chicken-embryo vaccine has been subjected to detailed study in the laboratory and in the field, and now occupies an important position in the mass vaccination of dogs for rabies control in many countries.

Research on rabies has thus received a great stimulus and is now being actively pursued in many leading laboratories, not only from the point of view of possible practical application against the disease itself, but also for the interesting insight obtained into biological processes in general.

Volume 10, number 5, of the *Bulletin of the World Health Organization* presents a selection of the communications to the section on rabies of the Sixth International Congress for Microbiology held at Rome in September 1953, and gives a picture of recent developments in this field.

Dr. Hilary Koprowski describes the biological modifications of rabies virus resulting from its adaptation to chicken embryo, and the results of inoculation of animals with this adapted strain.

Several of the contributors discuss the prevention of rabies in animals. Dr. H. N. Johnson compares the duration of immunity in dogs inoculated with either phenolized vaccine or chicken-embryo adapted Flury strain. The mass vaccination of dogs, as a means of control, is dealt with in two articles : Dr. C. W. Wells describes the results obtained in Malaya, while Drs. M. M. Kaplan, Y. Goor & E. S. Tierkel report those of a field demonstration in Israel. The ecology of rabies in Southern Rhodesia, where domestic dogs and wild animals play the chief role in transmitting the infection, is described by Dr. J. S. Adamson. Dr. Hermann Hell summarizes the situation in Austria, Dr. P. J. G. Plummer draws attention to the huge reservoirs of infection among wildlife in Canada, and Dr. Victor Carneiro outlines the special problem presented in Latin America by bat-transmission of the disease.

The prevention of rabies in man is considered from various aspects. Dr. Karl Habel emphasizes the advantages of antirabies serum used either alone or in conjunction

* This is reproduced, with slight changes, from the introduction to a recent number, devoted to rabies, of the *Bulletin of the World Health Organization.*

[1] *Wld Hlth Org. techn. Rep. Ser.* 1954, **82**

with vaccine—a combination which reduces the amount of vaccine necessary, and thus the risks of paralytic accidents. Dr. N. Veeraraghavan reports the results in India of treatment with phenolized vaccine, and analyses a parallel series of cases allowing of comparison of mortality in treated and untreated individuals. Drs. M. Baltazard & M. Ghodssi, on the basis of observations in Iran, point out the inadequacy of vaccination in preventing the development of rabies after severe wolf-bites, and indicate the directions in which future research would be desirable. The local treatment of wounds with chemical substances, such as fuming nitric acid, soap emulsions, and Zephiran, is considered by Drs. Howard J. Shaughnessy & Joseph Zichis, and the inactivation of virus by agents of the nitrogen-mustard or mustard-like type is investigated by Drs. H. M. Powell & C. G. Culbertson. Drs. Marjorie P. Schwab, John P. Fox, Donald P. Conwell & Thomas A. Robinson draw a comparison between the Flury-strain and Harris-type vaccines in producing antibodies in man. Paralytic post-vaccination accidents are analysed by Dr. George A. Jervis in relation to the phenomenon of allergic encephalitis induced experimentally in animals. To close, the question " Can man be protected against rabies ? " is put by Dr. K. F. Meyer, who concludes that, given effective education of the public and the widespread use of canine mass-vaccination, human rabies is a preventable disease.

* * *

The problem of rabies has occupied the attention of WHO for the past five years. A WHO Expert Committee on Rabies was convened in 1950 to review the prophylactic methods applicable to human beings and animals, while at its second session in September 1953 the committee examined the results of research and other advances in the control of rabies during the intervening three years. Such research included WHO-sponsored laboratory and field trials with hyperimmune serum and different vaccines for the prevention of rabies in man, and investigations on the use of the chicken-embryo adapted living avianized vaccine for the control of rabies in dogs, and on the local treatment of bite-wounds. The reports of the Expert Committee on Rabies [2] deal with these and other questions of importance in this field, and serve as a valuable guide to health and veterinary officials for the control of the disease.

WHO receives many requests for advice on laboratory techniques in rabies. As a result of the need for this kind of information, a monograph entitled *Laboratory Techniques in Rabies*[3] has recently been published. Three of the papers presented at the Sixth International Congress for Microbiology—those by Dr. E. S. Tierkel, Dr. A. Komarov, and Drs. D. d'Antona & E. Falchetti—appear as sections 2, 8, and 17, respectively, in the monograph, and consequently are not included in this number of the *Bulletin.* The monograph contains detailed instructions on laboratory techniques, methods of vaccine production, vaccine potency tests, and the production of hyperimmune serum.

In presenting these publications devoted to the problem of rabies, WHO hopes to make more widely known the most valuable discoveries of recent years, and to stimulate interest in both academic and technical research on this disease.

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[2] *Wld Hlth Org. techn. Rep. Ser.* 1950, **28**; 1954, **82**

[3] World Health Organization (1954) *Laboratory techniques in rabies,* Geneva (*World Health Organization: Monograph Series,* No. 23). Price : £1, $3.00, Sw. fr. 12.— (paperbound), or £1 5*s.*, $4.00, Sw. fr. 16.— (clothbound)

BILHARZIASIS IN THE BELGIAN CONGO

Bilharziasis—one of the most widespread incapacitating diseases—is a very considerable problem in many countries and has for many years been a subject of international concern. Control measures must be based on a knowledge of the distribution of the disease; and WHO has therefore for several years initiated or supported a number of bilharziasis surveys in Africa. Consultants have undertaken extensive studies, making available knowledge that must prove of great value to epidemiologists and public-health workers. The first of a series of reports on this subject has recently appeared in the *Bulletin of the World Health Organization*;[1] it is written by J. Gillet and J. Wolfs and deals with bilharziasis in the Belgian Congo and Ruanda Urundi. It is to be followed by

[1] *Bull. Wld Hlth Org.* 1954, **10**, 315

FIG. 1. DISTRIBUTION IN THE BELGIAN CONGO OF BILHARZIASIS CAUSED BY S. MANSONI

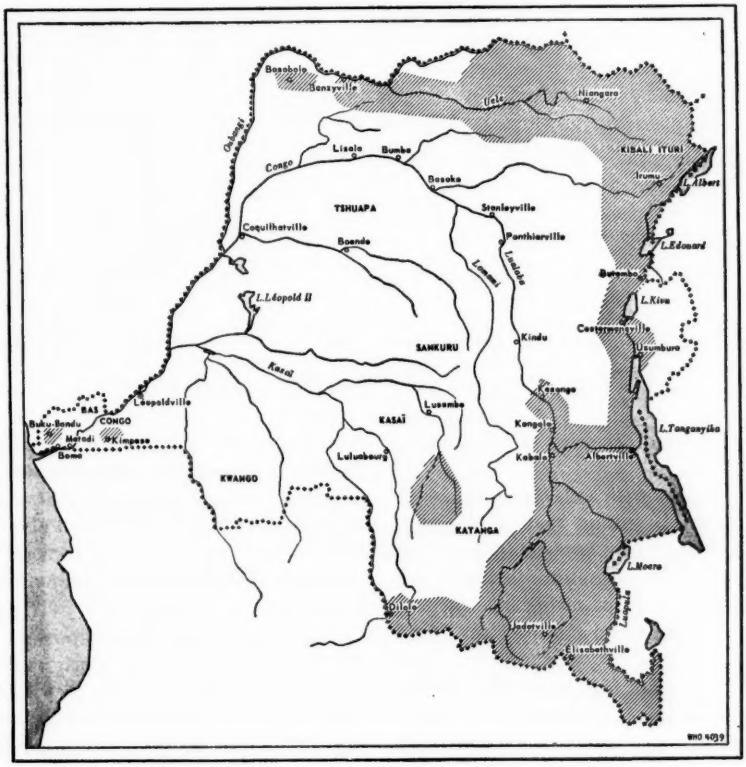
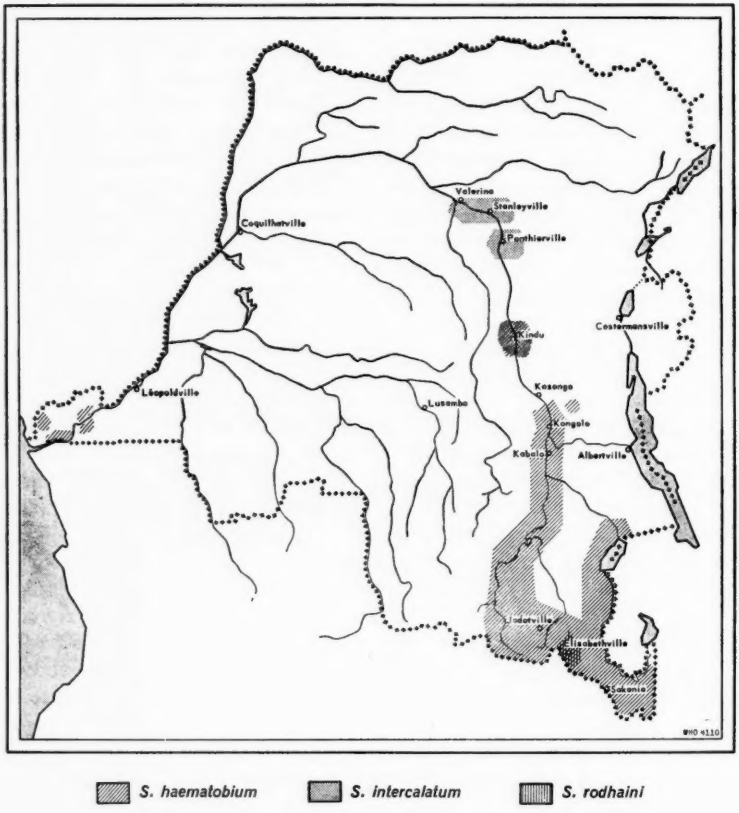


FIG. 2. DISTRIBUTION OF S. HAEMATOBIUM, S. INTERCALATUM, AND S. RODHAINI IN THE BELGIAN CONGO



similar reports on other areas in forthcoming numbers.

The study opens with a classification of the vector molluscs based on that of Bequaert & Schwetz, followed by two detailed lists of their geographical distribution, the first done according to the work of earlier investigators and the second based on the molluscs found by the present authors.

Separate sections deal with the various forms of bilharziasis in the Belgian Congo—intestinal from *Schistosoma mansoni* and *S. intercalatum* and urinary from *S. haematobium*. For each of these, the authors give a brief historical outline, list the vectors, and describe in considerable detail the different foci.

Intestinal bilharziasis caused by *S. mansoni* is endemic in a large part of the Belgian Congo, but the two most important foci are Ituri-Uele and Katanga-Kasai (see fig. 1). The local population is able to withstand the effects of the disease fairly well, and often presents few or no symptoms. When symp-

toms are found, however, one of two main syndromes is usually observed, either of the liver and spleen or intestinal. Only the larger species of *Planorbis* have so far been shown to be intermediary hosts of *S. mansoni*.

The first mention made by the medical services of urinary bilharziasis in the Belgian Congo occurred in 1925 in Katanga, where the disease later became endemic. The main vector of *S. haematobium* is *Bulinus (Physopsis) africanus*; but although this snail is widespread in the territory, urinary bilharziasis is largely restricted to two foci, Katanga in the south-east and the Lower and Middle Congo in the west (fig. 2). It does not generally have consequences more serious than anaemia.

S. intercalatum usually results in intestinal bilharziasis, but ova have been found to occur, although rarely, in both stools and urine. The disease, which is endemic along the Congo-Lualaba valley, is not frequently serious and responds rapidly to treatment.

After some discussion of parasitological and serological diagnosis, the authors consider various treatment methods, all of which require a long period of observation of the patient after treatment for proper evaluation. The use of potassium antimonyltartrate is the most frequent form of treatment for cases without complications, but serious cases do not respond well to this and generally require a period of protein and vitamin treatment followed by the administration of some better-tolerated antimony derivative.

In theory, the best means of prevention would be the education of the population of the Belgian Congo not to dispose of its faecal wastes into the waterways in the immediate vicinity of villages, but tradition dies hard and this cannot be expected to give results in the near future. In the meantime, other forms of prevention must be applied according to the circumstances. These forms include prophylactic emetic treatment, the supply of safe drinking-water to the larger population centres, and chemical and biological control of the vector molluscs.

TUBERCULOSIS MORTALITY AND GENERAL VITAL STATISTICS

From the figures published in a recent number of the WHO *Epidemiological and Vital Statistics Report*,[1] it appears that in July and August 1953 deaths from tuberculosis reached the lowest level ever recorded. From preliminary data it appears that the lowest mortality from tuberculosis for the whole year occurred in the Netherlands, with 9.2 deaths per 100,000 population. Over the same period, Denmark had 9.6 deaths per 100,000,[2] but during the two months already mentioned that figure dropped to 5.2—a new record. While these two countries were the only ones to reach quite such impressively low figures, there was remarkable general progress over the situation in 1950 in all the countries covered by this study.

However, these 25 countries, from five continents, are the only ones able to furnish valid and comparable health statistics. In countries which are still unable to do so, the situation may well be far from satisfactory. In fact, even in some of the countries studied, the tuberculosis-mortality rates were as high as 150 per 100,000 in some months.

One table shows the mortality from tuberculosis since the beginning of the century in

[1] *Epidem. vital Statist. Rep.* 1954, 7, 171

[2] The revised official rate received since publication of this study shows that tuberculosis mortality from all causes in fact fell to the record level of 8.8 per 100,000 (7.8 per 100,000 for pulmonary tuberculosis).

28 countries; it gives a striking illustration of the decrease in deaths from tuberculosis, amounting in some cases to drops of 80%, and even 90%, during this period. However, while tuberculosis is no longer the scourge it once was in some parts of the world, it retains its pre-eminence as the worst public-health problem to be faced by health administrations in the majority of countries.

The subsequent number of the *Epidemiological and Vital Statistics Report*[3] gives natality and general mortality statistics for nearly 60 countries or territories for the years 1951-4, generally in comparison with the mean figures for the period 1928-38. Other tables give recent figures for the cases of and deaths from typhoid and paratyphoid fevers, syphilis, gonorrhoea, and cerebrospinal meningitis.

[3] *Epidem. vital Statist. Rep.* 1954, 7, 203

CASES OF AND DEATHS FROM NOTIFIABLE DISEASES

Part II of the work *Annual Epidemiological and Vital Statistics, 1950*, has recently been published by WHO,[1] and contains data relating to 35 communicable diseases, ranging from plague and cholera to influenza and including malaria, the rickettsial diseases, communicable diseases of childhood, syphilis, and poliomyelitis. For most of the diseases listed, the numbers of cases or deaths have been given by month or four-week period, but for diseases with no marked seasonal fluctuation, only the annual totals are included.

The figures given in this volume are revised data, taken partly from official publications and partly from replies to requests for information sent by WHO to health authorities throughout the world. In a certain number of countries, the figures for deaths are derived from analyses of death certificates received by registration offices.

At the end of the volume, a table is given of the modifications to be made to the list of notifiable diseases which appeared in the preceding volume (covering the period 1947-9) in order to obtain the situation in most countries at the end of 1950.

[1] World Health Organization (1954) *Annual epidemiological and vital statistics. Part II. Cases of and deaths from notifiable diseases*, Geneva. 163 pages. Price: 17/6, $2.50, or Sw. fr. 10.—. Bilingual edition in English and French.

DONOVANOSIS

Donovanosis is a disease of venereal origin which has been frequently confused with lymphogranuloma venereum or lymphogranuloma inguinale, and has been described under many different names. A systematic study[1] of its history, distribution, etiology, clinical features, and treatment has now been carried out by workers at the General Hospital and the Medical College of Madras, where, nearly 50 years ago, as professor and physician, Major Charles Donovan discovered and described the intracellular bodies which are present in the lesions associated with the infection, and to which he gave his name.

[1] Rajam, R. V. & Rangiah, P. N. (1954) *Donovanosis*, Geneva (*World Health Organization: Monograph Series*, No. 24), 72 pages; price 10/—, $1.50, Sw. fr. 6. French edition in preparation.

Although not a major public-health problem, and of relatively little interest to—indeed, often unrecognized by—the general practitioner, this chronic disease is particularly distressing in its effects : the primary site is genital, with secondary manifestations in the inguinal, anal, and oral regions; destructive granulomatous ulcers form and spread, and in its advanced stages the disease is incurable. Almost everywhere in the world provision has been made for patients in the final stages of cancer or leprosy, but no special institutions exist to receive the victims of donovanosis, who become derelicts of society, and not infrequently commit suicide in despair. Since it is, however, an affliction invariably associated with poverty, lack of hygiene, and debased sexual standards, an organized public-health campaign should be successful in eradicating the reservoirs of infection; and patients whose condition is diagnosed sufficiently early for treatment with antibiotics to be effective may hope for complete cure.

This publication, reviewing the observations of all previous workers in the field, and illustrated by 38 photographs, is the first comprehensive monograph on donovanosis. It is one of a WHO series of such studies, each dealing with a specific disease and with measures for its control. Earlier studies published in this series are devoted to influenza [2] and plague,[3] and monographs on poliomyelitis and cholera are now in preparation.

[2] World Health Organization (1954) *Influenza : a review of current research*, Geneva (*World Health Organization : Monograph Series*, No. 20), 223 pages; price 17/6, $2.50, or Sw. fr. 10.

[3] Pollitzer, R. (1954) *Plague*, Geneva (*World Health Organization : Monograph Series*, No. 22), 698 pages ; price £3 5*s*., $10.00, or Sw. fr. 40.

Notes and News

Fourteenth Session of the Executive Board

The fourteenth session of the Executive Board was held on 26-27 May 1954, shortly after the closing of the Seventh World Health Assembly.

Dr. H. Hyde, Chief of the Division of International Health in the Public Health Service of the Department of Health, Education, and Welfare of the USA, was elected Chairman. Dr. O. Andersen, Professor of Paediatrics at the University of Copenhagen, and Dr. M. J. Ferreira, Professor of Hygiene at the Medical School of the State of Rio de Janeiro, were elected Vice-Chairmen; and Dr. R. Pharaon, Ambassador of Saudi Arabia to France, and Dr. H. B. Turbott, Deputy Director-General, New Zealand Department of Health, were elected rapporteurs. The other members were : Dr. S. Anwar (Indonesia), Dr. B. M. Clark (Union of South Africa), Professor H. M. Jettmar (Austria), Dr. R. Loria Cortés (Costa Rica), Dr. Melville Mackenzie (England), Dr. U Maung-U (Burma), Dr. P. E. Moore (Canada), Dr. Ryu Ozawa (Japan), Professor J. Parisot (France), Dr. P. Raffo-Sivori (Chile), Professor J. S. Saleh (Iran), Dr. P. Vollenweider (Switzerland), Dr. S. Al-Wahbi (Iraq).*

* The Board is composed of 18 persons designated by as many Member States. It exercises on behalf of the World Health Assembly the powers delegated to it by that body, and no member epresents the interests of one particular State.

The Board examined the co-ordinating role of WHO in poliomyelitis research and requested that a full report be made to it on new developments in this field at its next session in January 1955.

The Health Assembly had called the attention of Member States to the importance of environmental sanitation programmes, and the Executive Board decided that WHO work on this subject should be concentrated on two main points, namely, water-supply and waste disposal.

The Board also examined and approved for publication the reports of a number of expert committees: the first report of the Expert Committee on Onchocerciasis, the first report of the Expert Committee on Health Education of the Public, the third report of the Expert Committee on Nursing, and the sixth report of the Expert Committee on Tuberculosis (dealing with BCG vaccination). On the latter point, the Board noted that no effort should be spared to obtain scientific information on the effect of BCG vaccination in the prevention of leprosy.

The Executive Board approved the selection of Copenhagen as the site of the WHO Regional Office for Europe. A few days previously, the Regional Committee had in a special session chosen Copenhagen from among several other cities proposed : Nice, Frankfurt, The Hague, Geneva, Montreux, Vienna, and Florence. The decision will not take effect, however, until after consultation with the United Nations.

Finally, the Board decided that the Eighth World Health Assembly should start on 10 May 1955 in Mexico City.

Success of an Antityphus Campaign in Afghanistan

According to final reports received by the WHO Regional Office for South-East Asia, the antityphus campaign carried out in and around Kabul, the capital of Afghanistan, was fully successful. In a country where only a few years ago a series of devastating epidemics of louse-borne typhus took a toll of thousands in dead or seriously ill, no cases were recorded this year in the entire Kabul area.

These spectacular results are due to the large-scale application, by the national health services, of DDT-dusting procedures, first demonstrated in 1950-51 by experts made available by the World Health Organization. Despite heavy snows and the severest winter experienced in Kabul for more than 50 years, nearly 245,000 persons were covered in this campaign. In a total of 19,275 homes, more than 2.5 million pieces of clothing, beds and bedding were dusted, as were 302 mosques, 29 public baths and 1,294 horse-drawn hacks (" tongas ").

The work was carried out exclusively by teams of Afghan health workers under the personal supervision of Dr. A. R. Hakimi, Director-General of Health Services in the Ministry of Public Health. WHO provided only a limited amount of technical advice, while UNICEF contributed substantial quantities of DDT-powder and various items of equipment to supplement the local resources.

European Regional Conference on School Health Services

The WHO Regional Office for Europe, in collaboration with the French Government and with the participation of UNESCO, organized a conference on school health services in Grenoble from 14 to 19 June 1954, in which school doctors and nurses from 22 countries in the European Region took part.

All these countries are active in the field of school health, but with considerable variations in the level of attainment and in organizational structure. Thus they may be roughly divided into two categories : those countries where practically all children go to school, where the health services—at least at the primary level—reach almost all the children, and where medical work is largely preventive; and those where school attendance is in the process of being extended, where widespread social diseases still exist among the school population, and where the medical work must be both curative and preventive. This varied participation gave the conference a very wide scope, and means that its conclusions are of value beyond the better-developed group of nations in Europe proper.

On the subject of school medical examinations, it was unanimously agreed that only one child should be examined at a time, and that the examination, no matter how short, should be the occasion of warm personal contact between doctor and child and should contribute to the child's health education.

Stress was also laid on the importance of co-ordination between the school health services and, for instance, maternal and child health services and those concerned with higher age-groups. In addition, good understanding and co-operation between children, doctors, parents, and teachers is essential if full value is to be derived from the facilities and services provided for the children's health and for improved health education.

Other subjects discussed included fatigue induced by overwork or by setting too high a standard, sex education, the teaching of children with deficient sight or hearing, the medical examination of school staff to prevent the transmission of diseases to children, dental services, the training of school medical officers, and the publication of textbooks and periodicals on school health. The question of holding a second conference to consider outstanding items, such as mental health in schools, was also discussed.

Seminar on Dental Health Held in New Zealand

At a dental health seminar organized jointly by the New Zealand Government and WHO, 38 participants from 21 countries of the Western Pacific and South-East Asia Regions, and including three persons from the Eastern Mediterranean Region, met in Wellington, New Zealand, from 4 to 21 May 1954 to exchange views on dental health questions in those Regions.

The subjects discussed were the needs in the Regions, the methods whereby dental health programmes can be made an effective part of public-health services, and the selection and training of dental health personnel. Particular emphasis in the discussions was put on the modern concept of dental caries, including the effect of diet, prevention by oral hygiene, the topical application and ingestion of fluorides, fluoridation of water-supplies, and the cause and prevention of periodontal diseases.

This seminar was the first on this subject to be sponsored by WHO, and was a part of the Organization's assistance in the education and training of health personnel—one of its most important activities.

Prosthetics Conference to Meet in Copenhagen

A conference of a consultant group on prosthetics, convened by WHO, is to meet in Copenhagen from 23 to 28 August 1954. The agenda will include consideration of the causes and prevention of amputation; its incidence; basic principles for the rehabilitation of the amputee; requirements for the formation and development of a limb-fitting service; the training of personnel; the basic principles of a simplified artificial limb and a review of existing types of prosthetic appliances; the administration of prosthetic services; and the principal problems for international consideration and action.

Revision of International Statistical Classification

An international conference for the revision of the International Statistical Classification of Diseases, Injuries, and Causes of Death is planned for February 1955. In order to prepare for this, the WHO Advisory Group on Classification of Diseases met in February 1954 to review the experience gained in the use of the present classification. National comments and suggestions on this group's report will be considered by the Expert Committee on Health Statistics in September 1954. The committee will also consider the structure and principles of morbidity and mortality lists suitable for areas with few or no qualified medical personnel and where the International Statistical Classification is consequently difficult to apply. It is also expected that the revision conference in 1955 will provide participants with an opportunity to discuss various subjects of health statistics related to the revision and which are of national as well as international importance.

Institute of Inter-American Affairs in its 13th Year

Last February, the Institute of Inter-American Affairs (IIAA) completed the twelfth year of its existence. During its life it has developed co-operative health programmes with 19 Latin American States. In the course of these years, the IIAA, with the collaboration of the Pan American Sanitary Bureau, WHO, and voluntary agencies such as the Rockefeller and Kellogg Foundations, has stimulated a great awakening in public health throughout the Americas. One of its most important and most successful undertakings has been in the field of environmental sanitation, accounting for the greatest number of field projects carried out by the " Servicios " jointly with the responsible ministries.

Begun during the war, the first efforts were to improve environmental conditions for workers engaged in the production of strategic materials. Most important was the control of malaria and of gastro-intestinal diseases. After the war, emphasis was laid on technical assistance and financial support for the continuous development of better health and sanitation. Safe water-supplies and adequate sewerage systems were considered essential, and nearly 500 sanitation projects were executed during the first ten years of operation, covering water-supply and sewage-disposal facilities, markets, and slaughter-houses. The training of nationals was given high priority. Besides in-service training, over 250 Latin American engineers were sent to the USA. On their return, they organized new sanitation departments, strengthened existing ones, and provided vigorous leadership in the sanitation field.

Fourth Seminar of European Sanitary Engineers

The fourth seminar of European Sanitary Engineers was held from 22 to 28 April 1954 at Opatija, Yugoslavia, under the joint sponsorship of the WHO Regional Office for Europe, the Rockefeller Foundation, and the Government of Yugoslavia. European engineers and public-health administrators from 21 countries met and discussed two important problems of topical interest : river pollution and water disinfection.

The discussions and the papers presented on the first topic dealt with such questions as water pollution in Europe, the philosophy and practice of water-pollution control, and the health problems involved. On the second topic, the discussions were mainly devoted to the physico-chemical aspects of the water chlorination process, the biological action of chlorine and its compounds in water disinfection, and the methods and practices of chlorination.

Considerable experience and understanding was gained by a lively exchange of views on the different approaches adopted in different European and American countries in tackling the various problems met there. It is expected that this seminar will prove useful in contributing to a greater dissemination of technical knowledge and in arousing increased interest in these problems among European health authorities.

Dr. C. L. Gonzalez Appointed Assistant Director of PASB

Dr. Carlos Luis Gonzalez, Chief of the Division of Public Health of the Pan American Sanitary Bureau, Regional Office of the World Health Organization, has been appointed to the post of Assistant Director, PASB.

Born in 1916 in the city of Independencia, Tachira State, Venezuela, Dr. Gonzalez has had an outstanding record of accomplishment both in the field of public health in his own country and in international public-health work. He has represented his country at most of the World Health Assemblies and at the meetings of the Directing Council of the Pan American Sanitary Organization. He was elected Chairman of the Council at its sixth session in 1952 in Havana, where he was also Venezuelan delegate to the First Inter-American Congress of Public Health.

He has been a Member of the WHO Panel of Experts on Public Health Administration, and was appointed by the Government of Venezuela to serve as a member of the Executive Board of WHO from 1950 to 1952.

He received his university degree at the Universidad Central, Caracas, in 1938, and began work in the Venezuelan Ministry of Health, a year before his graduation, as laboratory technician in the Ministry's Cancer Institute. After graduation, he was appointed director of the laboratory of the Mental Hospital in Caracas. From 1939 to 1946, he was chief medical officer in various health units in Venezuela, gaining valuable field experience. In 1946, he received a fellowship from the Rockefeller Foundation, extended for a second year by the Venezuelan Government, to study at the Johns Hopkins University School of Hygiene and Public Health, in Baltimore, Md., USA, where he received the degrees of M.P.H. in 1947 and D.P.H. in 1948.

In 1948 he was appointed director of training courses for public-health medical officers in Venezuela, and in August 1949 he became Director of Public Health, a position he held until his appointment to the Bureau staff in 1953.

Obituary

SOTIRIOS B. BRISKAS

We have learnt with regret of the accidental death of Professor Sotirios B. Briskas (Greece), which occurred shortly after the Seventh World Health Assembly, at which he had represented his country.

Professor Briskas was born in 1905 in the Peloponnesus, and received his medical diploma in 1927 and his D. Sc. in 1937. He was first deputy physician at the Clinique Médicale des Enfants in Paris, and in 1939 was appointed to the professorship of paediatrics at the Faculty of Medicine in Paris, a position he retained until his death. He was also consultant physician at the Hôpital des Enfants Malades in Paris and deputy physician at the Medical Biochemistry Laboratory there.

His considerable scientific work was largely concerned with the physiology and pathology of children, covering copper metabolism, primary tubercular infection, and a variety of other subjects. His publications, which number at least 235, and his contributions to various scientific works were rewarded by a number of prizes from the Academy of Medicine and the Academy of Science of Paris.

He had also taken part in a number of international conferences, among them being several General Assemblies of the United Nations. He had participated actively in the discussions at the First, Second, Fourth, and Seventh World Health Assemblies (see below and he had served as a member of the Executive Board of WHO at its eighth session.

Points from Speeches at the Seventh World Health Assembly

Professor S. Briskas, Greece

... In a few weeks a year will have elapsed since earthquakes of an unprecedented violence shook the islands of the Ionian Sea. More than 1,000 dead and wounded, thousands of people homeless, entire towns and villages levelled to the ground—as though, in the terms of the report by the WHO representative, they had been subjected to combined, large-scale air and naval bombardments—this was the tragic toll of the disaster. And to make matters still worse, the initial earthquake that brought such ruin in its train was followed by secondary tremors which were unforeseeable and which created in an already sorely tried population a state of permanent anxiety, with psychological repercussions which prolonged and aggravated the effects of the physical suffering and material damage. If we could only believe that this catastrophe was a thing of the past ! Unfortunately this is not the case, since, as you have heard, there have been new and serious tremors much more

recently, affecting even the mainland of Greece, and bringing further tragedy and destruction in their wake.

If I refer to these catastrophies before the Assembly, it is because they provide a particularly striking example of the role WHO can play in international assistance, particularly when a calamity strikes one of its Members. This aspect of the Organization's beneficent work is very little known because, happily, the occasions for it arise only exceptionally. The Greek Government from the outset took every possible step for the assistance of the earthquake victims by distributing food and clothing and providing medical assistance; several thousand of the island inhabitants were evacuated to the mainland. However, although the Government showed its ability to cope with the situation, that in no way lessened its appreciation of the assistance given by WHO....

On behalf of the Greek Government, I have the honour to offer to the World Health Organization... the heartfelt gratitude of my entire country, which has been deeply affected by the Ionian Islands catastrophe. At a moment when international relations present so many difficulties, when they are strained by so much mutual misunderstanding and even, alas, hostility, it is particularly comforting to find that men can be entirely single-minded when they unite to relieve the suffering of their fellows. Over and above the gratitude of my country, I would like to lay the example of this supreme lesson before you.

Sir Arcot Mudaliar, India

... Here in this very building a momentous session is now taking place which has attracted global attention and to whose conclusions millions of hearts are looking with hope not unmixed with anxiety; the future not only of Asia but of the whole world of humanity hangs in the balance. A writer in a periodical a couple of years ago referred to the tragedy of the world situation in the first half of this century. He stated that within the first half century more wars were fought and more lives were lost than had been the case in the preceding 800 years of human existence. There had been more human misery, more cruelty, more mass assassination, more ravages against humanity, more loss of the finer trends of human thought and human feeling, than had ever been exhibited in the unfortunate record of humanity since the birth of civilization; and he added that today what we have to fear is not the ignorant, not the illiterate, not the savage, but the highly educated and highly competent technical expert. I wish this prediction were not true, but unfortunately reason rebels against accepting it as untrue. A sad commentary indeed on all our progress in education if it be true. But " hope springs eternal in the human breast ", and we of the World Health Organization who are wedded to the removal of suffering and the promotion of health, we who are dedicated to the service of humanity, of the injured, the wounded, the maimed, to whatever class they belong and whatever ideology they may be supposed to cherish, we of the World Health Organization will pray fervently that all tensions may ease, that the world may once more settle down to forge ahead with armaments of peace, and that the real fight will be against poverty, disease, and all its manifold manifestations....

Dr. S. Btesh, Israel

... Perhaps the most striking is the progress made in our country in the control of tuberculosis. Through extensive hospitalization, BCG vaccination and country-wide case-finding, we have reached a position where we are able to hospitalize almost immediately every case discovered. Morbidity from tuberculosis during 1953 fell to 1.8 per 1,000 of the population, and mortality steadily decreased from 19.2 per 100,000 of the population in 1947 to 10.4 per 100,000 of the population in 1953. No less striking is the position with regard to malaria, which has been practically wiped out with the exception of a small stretch of land on the north-eastern border of the country.

In maternal and child health great progress was made. Infant mortality in 1953 reached the low level of 35 per 1,000 live births as compared with 52 in 1949. Control of venereal diseases by case-finding activities and free treatment was also gratifying. The number of cases of venereal diseases in the country is negligible, and only 11 cases of congenital lues were recorded in 1953.

In the field of hospitalization great strides have also been made. There are at present 3.2 general beds per 1,000 of the population, and a number of additional hospitals are under construction...

Dr. D. El-Chatti, Syria

... The grant of fellowships, compared with the sending of teams of experts, is an immensely more effective, durable, and broader contribution to the development of health services. Those returning after study on fellowships share the benefit of education received outside, and form a reservoir to be drawn on for the maintenance of a balance between the extent or number of projects and the number of persons qualified to put them into operation.

Because social contact is such a large element in public-health work, we further suggest that another

goal for the grant of fellowships be the expansion of the fund of native experts, who already have a facile understanding of the background and ways of their people, leading to smoother relations, efficiency, and accurate judgment in their work.

We have no doubt as to the value of international teams, to which the results of their fine work bear the best witness. Although the team members and advisers are qualified generally for their work, they have rarely a deep understanding of the all-important social milieu. Nor have they the time, during their hurried visits, to study or evaluate the phenomena to which they are exposed. Therefore fellowships, of an international character in particular, are worthy of high priority among budget items...

Sir John Charles, United Kingdom

... There are some, no doubt, who regard the problems of modern Britain, or even the Britain of 100 years ago, as remote and incapable of comparison with their own, and to such I would say we have had, and still have, not dissimilar problems and have taken steps to solve them. We, too, have met the great plagues at one time and another and have conquered them—leprosy, malaria even, the plague, typhus, typhoid, smallpox and cholera. We are still battling with others. Sometimes the remedy has been and is a purely medical one; more often, a combination of medical knowledge, legislative activity and administrative capacity involving many persons, many crafts, many types of experience. But it has always taken time and perseverance. For short-term planning and the emergency, a certain degree of feverishness can be allowed; for such long-term planning as WHO is now embarking upon, patience and constant unremitting endeavour are the watchwords. Other men have laboured and we are entered into the fruits of their labours. Other men in their turn will harvest our fruits. We are like the Romans of old who placed acorns in their pockets and planted them here and there, not for their own immediate benefit, but that their grandchildren should find shade and comfort under the leaves of the oak-trees of the future...

Dr. A. Stampar, Yugoslavia

... this Assembly marks the end of the period of eight years of our work since the establishment of our Organization... In an attempt to summarize that period I propose to divide it into three different and distinct phases.

The Interim Commission which operated for nearly two years might be regarded as our romantic period, inspired by the favourable developments at the International Health Conference held in New York in June and July 1946. On that occasion delegates of what could then be considered a large number of countries, including even those which were not Members of the United Nations, gathered there, thus manifesting our endeavour to make our organization universal. Despite the relatively small means we had at our disposal, our programmes, which were of limited number, were carried on with faith in the further progress and expansion of the scope of our activities. However, that romantic period came to an end already in 1948, when favourable developments towards making our organization a universal one were stopped owing to the position taken by some countries.

Then came what we may call the realistic period of our activities. We gradually began to extend our activities in many ways and many territories, both on our own initiative and at the request of some Members of the Organization. Though our resources were still limited as compared with the programme we had in view, nevertheless the Organization achieved noteworthy progress in many fields. The decision of the United Nations to establish the Programme of Technical Assistance for underdeveloped countries gave rise to new hopes, for it promised a notable expansion of our activities as well as possibilities for their realization. It encouraged our optimism, associated with the hope that Technical Assistance would become a permanent institution of the United Nations with resources that would not be liable to reduction. Meanwhile, the cuts in the Technical Assistance Programme which took place, primarily owing to delays in the payment of contributions, initiated a critical period in our development... it is evident that the cuts in Technical Assistance funds have assumed such proportions as to reduce a great deal of activities, some of which have been carried on thanks only to our utmost efforts.

On account of the Technical Assistance Programme many of our activities were intensified and promises were given to different countries as to future action. All that encouraged a justified hope of further achievements, aroused interest for our activities, and imposed new sacrifices on behalf of receiving countries, both as to their contributions and the necessary expenditures to maintain expert teams sent to them. At the beginning some countries greatly benefited from the Technical Assistance Programme. Very soon, however, that aid was subject to curtailment which resulted in the postponement and deletion of the programmes which had been planned. In that way, I am afraid, the prestige of our organization has been very much affected; and its recovery will take a long time. In some cases it will be hardly possible. It must be borne in mind that some Members of the Organization might even start to develop

a feeling of distrust towards the Organization, despite cases where results of lasting value have been achieved, as in the fields of prevention of communicable diseases, medical education, sanitary engineering, demonstration centres, expert committees, etc., although some of these examples of constructive work cannot be attributed exclusively to our organization. Undoubtedly many fellowship awards, as well as efforts towards the strengthening of national health administrations, have always been very much appreciated. An encouraging sign, however, is the endeavour of certain Members of the United Nations in the United Nations General Assembly and in the Economic and Social Council to establish Technical Assistance funds on a permanent basis which would not be liable to fluctuations and frequent and sudden changes, so to ensure uninterrupted activities in the field of world health...

Views on WHO

Director-General's Annual Report

The review of the Annual Report of the Director-General, 1953, appearing in the 23 April 1954 issue of *The Medical Officer*, ends with the following comment :

" ... No one who reads this report and who believes that health is indivisible can feel that the United Kingdom's contribution of something over a third of a million pounds is excessive or ill-spent. Dr. Candau, in an address given in London on World Health Day (7 April) forecast an increase in the British contribution by some £117,000—a half-penny a head—which we trust will be ungrudgingly given..."

The Work of WHO

Under the title " The promotion of world health ", the *British Medical Journal* of 17 April 1954 devotes a leading article to the report for 1953 of the Director-General :

" World Health Day, April 7, was celebrated in London at a meeting, addressed by Dr. M. G. Candau, Director-General of the World Health Organization, and by Mr. Walter Elliot, M.P., a former Minister of Health... Dr. Candau's visit to London coincided with the publication of his annual report...

" The report mentions that there were about 350 WHO projects in 74 countries last year. The greatest number of these were proceeding in south-east Asia, and the next largest groups were in Europe, the Americas, and the Eastern Mediterranean, with 60 or 70 enterprises in each region. WHO's activities in Africa were relatively few in 1953, but they extended from public health education in Liberia to the supply of medical school equipment in Kenya and malaria control on the Congo...

" As these projects are developed they seem to have a sharper definition than in earlier years. WHO is not a rich uncle distributing largesse among impoverished nephews. Its purpose is to stimulate regional and local effort so that eventually there may be in every country and territory a band of trained and competent workers to man the health services. In the distant future when that is accomplished WHO will have a different role to play. Meanwhile, as Dr. Candau rather sadly remarked at the World Health Day meeting in London, the funds available from technical assistance sources are liable to fluctuate. In order that the work of the Organization will not suffer, the World Health Assembly... is to be asked to increase the effective working budget from the previous year's figure of 8,500,000 dollars to 10,300,000 dollars. This amount, Dr. Candau said, was needed to enable them to carry out, without interruption, their planned health activities in 117 countries and territories in 1955. He added that the United Kingdom was the second largest contributor, after the United States, to the funds of WHO : at the present moment the United Kingdom contribution to WHO amounted to 1½d per head of the population per year. If the budget was increased by the desired amount the cost to every person in the United Kingdom would be one halfpenny a year more. It is unfortunate that a number of countries are in arrears with their contributions, and that there is a phalanx of inactive members behind the Iron Curtain, but even with these disabilities WHO achieved much to be proud of in 1953 and will undoubtedly continue to play a central part in the work of improving environmental conditions throughout the world."

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